AMERICAN AGRICULTURIST,

ADAPTED TO THE

Farm, Garden, and Household.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN—WASHINGTON.

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November.

"'Tis easy to resign a toilsome place,
But not to manage leisure with a grace;
Absence of occupation is not rest,
A mind quite vacant is a mind distressed.
The veteran steed, his task excused at length,
In kind compassion of his failing strength,
And turned into the park or mead to graze,
Exempt from future service all his days,
There feels a pleasure perfect in its kind,
Ranges at liberty, and snuffs the wind,
But when his lord would quit the busy road,
To taste a joy like that he had bestowed
He proves, less happy than his favored brute,
A life of ease a difficult pursuit."—COWPER.

The only period of rest in the circle of the farmer's year is now at hand; a period of enjoyment, but also one of peril. The business of cultivation—the appropriate occupation of the husbandman—is done. He has passed through the pressing cares of seed time and tillage, the joys of the early and latter harvests, and has welcomed the last of his crops to the barn and the granary. His store houses are full, and the flocks and herds now live upon the accumulated provisions of the Summer. The last of the flowers has faded, and the frosts have turned field and forest to a russet brown. The leaves that put on such gorgeous coloring in October, are now either changed to a somber hue, or fallen, leaving the forest bare and desolate. The skies have lost the roseate hue of Summer, and begin to look chill and wintery. The weather is fitful, and every sunny day is succeeded by cloud and storm.

In the olden time farmers accomplished very little after the potatoes and turnips were gathered and the cider was made, until the opening of the Spring. At home, the cider barrel had its potent temptations, and abroad, the village tavern and grocery held out their allurements to drinking and dissipation. The country was new, the soil fertile, and the farmer did not feel the necessity of those improvements which prepare the way for successful cultivation. Draining had hardly been heard of, and the muck mines were not opened. He fed his cattle, prepared his fuel for the Winter fire, marketed his crops, and the rest of his time ran to waste. At this season he visited his friends, enjoyed their hospitalities, and too often contracted their drinking habits and prepared the way for debauchery and ruin. It was the most perilous period of the year, because he had not learned how to improve its leisure.

We are so constituted that we can not *enjoy* idleness. This may satisfy the toil-worn brute, as he quits the yoke or the cart and regales himself in fat pastures. He knows nothing better than the gratification of his appetite for food. But man can not be satisfied while the best part of him, that which constitutes his manhood, lies waste. The mind must have occupation of some kind, and the release from the more pressing cares of cultivation at this season, should only induce a higher activity of the mind.

It is indeed well to employ a portion of this leisure in visiting friends and relatives, and in keeping alive the sympathies and associations of earlier years. Some are so situated in their business, that this is the only time when they can return to the old homestead, to look again upon the familiar scenes of childhood, and to receive words of blessing from father and mother. These social reunions at the annual Thanksgiving, are worth all they cost, and more. There is a reviving influence in going back again to the old hearth-stone of childhood's home; the old well and its oaken bucket, the ancestral trees gathering new glory with their increasing years, the garden, the orchard, the fields, the forests where our eyes first opened upon the world. The farmer is made a better citizen and a better man by thus cultivating his social nature, and keeping alive the ties that bind him to his kindred.

These annual visits are also profitable for his business, as they afford opportunities for observation. Farming is no longer a stereotpyed business. One can hardly visit the most limited and obscure rural district without seeing abundant evidence that the leaven of new ideas is at work. The tillers of the soil are getting out of the old tracks of the fathers, and are beginning to use *mind* in their husbandry. The barn is no more a mere depository of the harvests of the field. It is a manufactory of fertilizers, the one thing needful in profitable tillage. It is the great hinge on which every thing in the operations of the year turns. Barns are now a profitable study, to learn how practical farmers contrive to shelter all their cattle, and to make the most of their manure. The plow has become a tool constructed upon scientific principles, turning the furrow with the least expenditure of strength, and making it broad or narrow, deep or shallow, and laying the slice flat, or at a sharp angle with the surface of the field, at the will of the plowman. Tools have become a prime necessity of economical cultivation, and the strength of the ox and the horse is more and more taking the place of human sinews. No one can observe the different methods of farmers in their business, without learning something profitable. He will return with new ideas and a new zest to the cultivation of his own acres.

Nor need the season upon which we are entering, be wholly lost to the farm. In many parts of the North, plowing can still be done for the first half of the month, and the surface of the fields be left in that rough, broken condition, in which the freezings and thawings of Winter will most benefit them. There is no human invention that will break down rough clods and pulverize them like the frost. Farmers are using this season for labor, much more than they did in the olden time. Trenches are dug for walls, and stone fences are built. Some keep their full laboring force at work—an arrangement much better for the laborer, than four months of idleness, or occasional work by the day. Many have muck deposits so situated that they can be worked at this season. Muck thrown up in Summer, can be carted, and the deposits in the barn cellars can be composted with manure from the stables and the sties. Many improve the leisure to top dress their meadows with compost from the yards, and where the land lies level and is not subject to washing, this is a good practice. It is found by shrewd calculators, that the labors of the next four months, spent mainly in handling muck, digging, composting, spreading, and laying up stores for Summer use, are the most profitable of the year.

Whatever labors are attended to or neglected out of doors, reading and reflection should be carried on vigorously within. The most successful farmer now, is the man who applies most of *thought* to his business. The days of routine farming are numbered, and the man who plods on in the ways of his fathers, is certain to be distanced. The problem to be solved is, not how to grow crops—not even great crops—but how to get them economically. We want to get rich by farming, without selling off all the fertility of the soil under our feet. A rich farm, giving a generous yield to toil, makes a rich farmer, whether he have much or little stock in the bank or railroad. He may be sure of dividends when banks fail. We want to study not only to get great crops of corn and grass, but to make the crops pay for the labor and manure, and leave the soil richer. There are manifold details of husbandry that require forecast and reflection. Now is the time to lay plans for the coming year, and for the distant future. It is a great work to bring up a long used soil to its primitive fertility, and to manage the old homestead so that every acre shall do its best, making us richer while it enriches itself. To solve this problem will tax the invention and quicken the intellect. He who does this, will "manage leisure with a grace" and grow a wiser and better man, and also increase his wealth.

Calendar of Operations for Nov., 1860.

[We note down sundry kinds of work to be done during the month, to call to mind the various operations to be attended to. A glance over a table like this will often suggest some piece of work that might otherwise be forgotten or neglected. Our remarks are more especially adapted to the latitudes of 38° to 45°; but will be equally applicable to points further North and South, by making due allowance for each degree of latitude, that is, earlier for the North, and later for the South.

EXPLANATIONS.—*f* indicates the *first; m*, the *middle;* and *l*, the *last* of the month.—Doubling the letters thus: *ff*, or *mm*, or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, signify that the work may be done in either or in both periods indicated; thus, work marked *fm*, indicates that it is to be attended to from the *first* to the *middle* of the month.]

Farm.

It is necessary that what now remains to be done in securing late crops, be finished quickly; frost and snow will soon take full possession of the fields, to act their important part in ameliorating the soil and preparing it for future tillage. If the cultivator has controlled the growth on his fields, allowing no weedy intruders to ripen their seeds, he has little to fear from the sweeping winds—if otherwise, every blast will send hundreds and thousands of those, his enemies, flying to their safe winter quarters, to emerge in Spring, ready to dispute with his crops for the mastery of the soil.

In addition to completing preparations for Winter—making every thing comfortable for the family in the house, and the family at the barn—drawing and composting muck, finishing drains, threshing and marketing grain, etc., will afford profitable employment. The present leisure from more pressing work may be turned to great profit in reading, study of the *science* of farming, and planning for future improvement.

Buildings—Examine after hard storms, and keep in thorough repair. Painting may yet be done better than in Spring or Summer.

Cattle—Feeding at the barn is now necessary. A great saving of food, and much benefit to the manure heap, is secured by cutting and cooking food. Stalks and other coarse feed so treated, will be readily eaten up clean. Feed from racks or boxes, and give variety as well as plenty of food. Read on subsequent pages "Economy in Feeding," and "Comforts for Cows."

Cellars—As the cold becomes severe, protect against frost. Straw or leaves are preferable to manure for banking against doors and windows. There will be less danger from frost, if sufficient ventilation be afforded to carry off moisture. In constructing houses, a ventilating flue should be carried up from the cellar toward the top of the building.

Cisterns and Wells—Arrange pumps and other fixtures so as to prevent freezing.

Corn—Complete husking, *ff*, if not already done. Shell and market as soon as favorable prices are offered. Guard against depredations of rats and mice. Save stalks, leaves, and husks for fodder.

Draining can be done until frost prevents. Keep sluice-ways upon the highway open, and occasionally examine drain furrows among Winter grain.

Fruit—Remove apples and pears to the cellar before they are frozen. It is important that they be kept dry and cool, and secure from rats and mice. Hanging shelves are convenient for ripening choice late pears

Grain—Select the best growth for seed, if not attended to before. Thresh as fast as practicable. Allow no straw to be wasted; use it cut and mixed with meal for feeding, and for litter in the stalls and yards.

Hedges—Plant deciduous, *ff*, *m*, if the soil be dry; otherwise leave until Spring.

Hogs—Complete the fattening as rapidly as possible. Give plenty of *cooked* food. An occasional mess of potatoes with their meal, will keep up their appetite; a little sulphur occasionally is also beneficial. Provide for early pigs by turning a male among the breeding sows, *m*, *ll*.

Horses—Give plenty of cut feed, and add carrots, which are both wholesome and nutritious. Oats in the sheaf, run through the cutter, make excellent feed. Give plenty of straw for bedding. Construct gutters at the rear of the stall for conducting away urine. A covering of muck upon the stable floor makes a soft standing place. The stables should be warm, but well ventilated; many diseases are contracted in foul stables. Keep horses well shod for traveling on frozen ground.

Ice Houses may yet be constructed if unsupplied. Have them in readiness to be filled at the first favorable opportunity.

In-door—Cultivate the *mind* during the leisure of the season.

Leaves are useful for bedding, for manure, and for protecting plants. Read "Save the Leaves" on page 330.

Manures—Now is the time to commence to husband the stores for next year. Supply abundance of muck to absorb liquids and gases, and to compost with cleanings from the stable. Use also plaster about the stables, poultry house, etc., to fix escaping gases; allow nothing to waste that can be turned to account.

Plow heavy clay lands intended for cultivation next Spring, and leave the furrows to be harrowed by the Winter frosts.

Poultry should be *kept* fat, to be profitable. Supply them with plenty of grain, and give waste meat chopped fine, two or three times a week. Allow them gravel, and ashes or chip dirt to wallow in; they need sunshine, and also free access to water; treated in this way, they will give a good supply of eggs. Fowls for market should be confined separately, in small coops, fed liberally with boiled corn, and kept quiet.

Pumpkins—Continue to feed to fattening animals and to milch cows. If there be a large supply, store where they will be safe from frost until used.

Schools—Give the children the best school advantages that can be procured. Allow them to commence early in the season, and to attend *regularly*. Encourage them by frequent visits at the school house, and sustain the authority of the teacher.

Sheep—Provide ample sheds and feeding racks apart from other stock. Do not keep them in the pasture too late in the season. Feed regularly, and allow free access to water. Roots with hay, will be found profitable. Salt at least once a week. For early lambs turn in the buck, *m*, *l*.

Stacks—It is wasteful of hay and manure to feed from the stack upon the surrounding grounds. Draw it to the barn and feed out under cover.

Sorghum Sugar Cane—Complete cutting and manufacturing, *ff*. It may be kept under cover several weeks without injury—moderate freezing, after cutting, does not spoil it.

Tools, etc.—Have all implements, carriages, carts, etc., under cover, and improve rainy days by repairing and painting such as need it. Clean and oil harness, and put sleds and sleighs in running order.

Turnips and Carrots—Harvest any remaining, *ff*. Store in the cellar or in pits, with sufficient protection from frost.

Water Pipes—Cover with straw or other proper material where there is danger of freezing.

Winter Grain—Keep all animals from the fields; the roots need the late growth for Winter protection. Let no water stand on any part of the surface.

Wood—Prepare a supply of fuel to be drawn when snow comes. Cut out dead or decaying trees, and trim out thick undergrowth. Swamps may be cleared as soon as frozen sufficiently to bear a team.

Orchard and Nursery.

The latest fruit is now to be gathered and stored, or made into cider. Before the trees are left for their winter rest, much may be done for their benefit. If Summer pruning has been neglected, it is better to attend to it this month than to leave it until Spring. Multitudes of insects have deposited their eggs under the loose bark and moss of the trunk and larger limbs; and others are comfortably burrowed under ground, in different stages of being, waiting until Spring shall warm them into life. Scrape the trees thoroughly; plow the ground, not deeply enough to disturb the roots, and hoe or fork over the soil near the trunks. Besides the exposure of insects to frost, plowing will destroy the nests of mice, and eradicate the weeds and grass in which they are harbored.

In the nursery the busy season of filling orders, transplanting, increasing stock, etc., will leave little leisure while the ground remains in working order.

Apples—Plant *ff*, *m*, for new orchards, and to fill vacancies in the old. Many unoccupied corners about the buildings and along lanes can be profitably used for fruit trees.

Cherry trees planted in the Fall in this latitude are liable to be killed by frost. Further South, the present time is favorable.

Cider—Finish making before the apples decay or are injured by freezing. Read article on page 334.

Cions—Cut at any time this month, when not frozen, and bury in dry earth, either out doors, or in the cellar.

Fruit—Gather, *ff*, any remaining. Preserve in a cool, dark, and dry place. The cooler fruit can be kept without freezing, the longer it will remain sound. Separate bruised or decaying apples or pears from the general stock, to be used first.

Grapes—Plant vines, *ff*: Prune, *ff*: for full directions see page 340. Lay tender varieties upon the ground and cover with straw, hay, or other litter for Winter protection. Hardy sorts do better if treated in the same way. Remove, say six inches of the soil around the roots, if insects have been troublesome, and replace with fresh sifted earth. Read article "Microscopic Insects," on page 332.

Insects—Give the borer and scale no quarter. Examine twigs for eggs of the caterpillar.

Manure—Top dress orchards and fruit yards with compost, to protect the roots and enrich the soil.

Mice—Where these or other vermin are troublesome, wrap the lower ends of the trunks with thick tarred paper. Allow no hedge-rows near the trees.

Nursery Rows—When transplanting is completed for the season, plow between them, and turn the furrows toward the trees to protect them, and give good surface drainage. If possible, transplant all seedlings this Fall.

Pear Trees—This fruit is rapidly increasing in popularity. Set out an abundant supply. It is better to cultivate a few varieties of known excellence, enough to keep up a succession of fruit, rather than to fill the grounds with a great number of sorts. Give a good top-dressing of manure to be forked in in Spring.

Pruning is better performed now than in Spring. August is probably the *best* season for this work, except in warm climates; there, the present month is favorable.

Quinces—Gather and market, or preserve the fruit as it ripens. Plant trees, *ff*, *m*.

Seeds of Apples, Pears, Quinces, Plums, Cherries, Peaches, and the various nuts and hard-shelled seeds—plant *ff*, *m*, if not already done as directed last month.

Stocks—Transplant all the hardy ones into nursery rows. You can spare the time better now than in Spring. Others may be heeled in over Winter.

Tender Seedlings, especially evergreens, need some protection in the nursery. Sift in dry sand to protect the stems, and cover with forest leaves, straw, or evergreen boughs, for the first Winter.

Kitchen and Fruit Garden.

There is little to be done in this department, except by the market gardener, who will be busy preparing for early crops for the following season. The roots yet in the ground are to be gathered, rubbish cleared away, and draining and trenching to be completed.

Asparagus—New beds may be made, and roots set or seed sown, *ff*, *m*. Cover the beds, *m*, *l*, with several inches of coarse manure.

Beets—Complete harvesting, *ff*, before hard frosts Feed the tops to cattle or pigs.

Blackberry plants may be set while the ground remains open; it is better to put them in earlier.

Cabbages and Cauliflowers—Harvest the late crop and store in cellars, or bury them in the open field. Place young plants in cold frames.

Carrots—Dig and store the remaining crops, *ff*.

Celery—Continue to earth up, *ff*, in dry weather. Harvest, *m*, *l*. Stand it upright on level ground and cover with earth. Allow no earth to fall between the stalks.

Cold Frames—Prepare for use, *ff*, and set in them, *f*, *m*, the cabbage, cauliflower, lettuce plants, etc., requiring Winter protection. Cover with glass or shutters during cold nights, but keep open by day as long as the weather will admit. When Winter sets in, cover securely, banking up about the sides, and put straw, leaves, etc., over them to exclude frost. Every mild day, open for a short time.

Currants and Gooseberries—Plant roots of improved varieties, *ff*, *m*. Divide and reset those that have become an unproductive hedge. Fork up the ground around the roots, to destroy insects. If they have proved very troublesome, replace the soil with fresh earth. Give a coating of manure to protect and stimulate the roots.

Drain and trench heavy soils; they may thus be worked earlier in Spring.

Figs—Bank up about the trunks, and bend, and cover the branches with earth or straw.

Fruit Trees—Plant in all suitable places.

Grape Vines—Plant roots and layers, *ff*, *m*. Prune and preserve the cuttings in boxes of earth for planting next year. Take vines from the trellis, and cover them with straw or earth.

Mice—Guard against their intrusion into the cold frames. Dishes of meal, poisoned with arsenic, will soon dispose of them.

Onions—Cover with litter those left in the ground during Winter.

Parsneps and Salsafy are improved by leaving in the ground until Spring. Dig, *m*, *l*, for use in Winter, and cover them with earth in the cellar.

Poles, stakes, frames, etc., should all be gathered and housed for future use.

Raspberries—Plant out, *ff*, if not done last month. Cover canes of tender sorts with an inch or so of earth.

Rhubarb—Set roots and crowns, *ff*, *m*. Cover with coarse stable manure, to protect the roots and enrich the soil.

Spinach—Hoe and thin the plants, and cover with straw or other litter.

Strawberry Beds—Cover lightly with leaves, or coarse litter. An inch in depth is ample.

Turnips—Gather before injured by frost, and store for household use and for feeding to stock.

Flower Garden and Lawn.

In some localities, especially at the South, the directions of last month have not been completed, and are the first to claim attention. Every preparation for Winter should be made early, before severe frosts injure the plants. The half hardy varieties are now to be removed to pits, covered with straw or evergreen boughs, or laid down and covered with earth.

If the bulbs have not been planted, lose no time, but put them in at once, as advised last month, and under "Hyacinths" on a subsequent page. Set out a good supply of them, as they will be certain to please, when in bloom in early Spring.

Chrysanthemums are nearly the only flowers which have survived the repeated frosts. It is now that their chief attractions are brought out as lengtheners of the floral seasons. As soon as the flowers are killed by frost, the roots may be divided and reset. They will make a better show if transplanted this Fall, than if left until Spring. Carry a few into the houses for a Winter bloom.

Climbers—Most of these, like the wistaria, ivy, honeysuckle, climbing rose, etc., come out fresher in Spring, when taken from trellises and laid upon the ground. A slight covering of earth, straw, or leaves, will still further protect them.

Dahlias and gladioluses have probably been killed by frost, and the roots should be carefully lifted, and put in a cool, dry cellar, or other place out of the reach of frost. We prefer keeping them in boxes of dry earth or sand. If too damp, they will mold, and when very dry, they shrivel. A good vegetable cellar is a suitable place for them.

Flower stalks, annual climbers, and any decaying plants, or those which have completed their bloom, should be removed as unsightly objects. Put everything in neat order for Winter.

Frames and pits should be in readiness for tender plants, *ff*. See directions on a subsequent page.

Hedges may still be planted on well drained soils, *ff*. Leave evergreen hedges until next Spring.

Lawn—Rake off all rubbish, and give a coating of manure to protect the roots and enrich the soil.

Ornamental Work, such as vases, baskets, urns, statues, wire works, etc., should now be stored under cover. Repaint those needing it.

Perennials will give a finer bloom another season, if transplanted now, rather than next Spring. Divide the roots of such as are to be increased in number. Pæonies, lilies, and a few other plants will flower feebly, if set in Spring.

Roses—Protect tender ones by laying down, and covering with earth or leaves; or they may be potted, and carried to the cellar or pit. If to bloom in Winter, set them in a cool place for a rest; afterward expose them to a moderate warmth. Climbing and pillar roses, even if hardy, will show a better bloom next Summer, if laid upon the ground during the Winter; no covering is needed.

Shrubs and Ornamental Trees—Plant, *ff*, *m*, in appropriate places upon the lawn and along the borders. They usually give the finest effect when set in clumps or masses.

Green and Hot-Houses.

Where there are two or more houses, some for merely keeping the plants alive, or securing a moderate growth, and others for increasing a stock by propagation, or forcing them into a Winter bloom, the treatment must be varied essentially, and general directions only can be given. Some extensive propagators have a rose house, a camellia house, a house for a few of the tropical plants nearly allied to each other, an orchid house, several houses for grapes, etc., amounting to acres covered with buildings, and only an experienced person can attend to them successfully. In general terms, each house must be managed with reference to its contents, and the objects to be attained.

Having put the Green-house proper in order, and stored it with those plants needing Winter protection, or which are only to be forced at a future time, attend particularly to ventilation, as the change from out-door air to a confined room should not be suddenly made. During rains, fogs, and frosty weather, the doors and windows should be closed, and, before the end of the month, some fire heat will be beneficial. Little water will be needed, and but little care in other respects; the plants may be left to a quiet rest. The decayed leaves should be picked off as they appear, and every thing be kept neat. A good stock of bulbs should be potted to be taken to the forcing house at intervals for a Winter bloom. The green-house is also the appropriate place for keeping a supply of the various plants to be taken to warmer apartments for flowering during the Winter.

The Hot-house should be attractive even thus early in the season, as many of the blooming plants have not ceased to flower since their removal from the borders, and others are coming into bloom. A nearly uniform heat should be maintained, ranging from 55° to 65°, or even 70° in some collections. One of the first things requiring attention, is to have a full stock of young thrifty plants put in a growing condition, to furnish a succession of bloom during the entire Winter. A variety of annuals should be sown at intervals, for the same purpose. Some of those put in last month, are now ready to pot, and in a few weeks a full bloom may be expected.

Bulbs should be brought from cooler apartments only as they are wanted to bloom. They may be put singly in glasses, or small pots, or several of them may be grown in a large pot.

Camellias are beginning to push out anew, and some of the flower buds are well swollen. Syringe and water more freely, giving them light and air.

Fires will need careful attention, as a little neglect often causes much mischief. Most of the plants being tender, a near approach to the freezing point will check their growth, while too much heat will unduly force or scorch them. A thermometer is an indispensable requisite. If a stove is used, keep a tank of open water to supply moisture by evaporation. This is not as essential with hot water or steam pipes.

Grapes—Prune and lay down, or tie up vines which have ripened their wood. Give them a season of rest now. If the roots are in an outside border, cover them with manure, straw, etc.

Insects—Keep them in check at the beginning, or they will increase rapidly. Hand picking, syringing, and tobacco fumes are appropriate antidotes.

Pots, Tubs, and Boxes, containing growing plants, should be frequently examined. Keep the drainage open, remove weeds and moss, loosen the soil and add liquid manure or rich earth to those plants which are flagging. Prune or pinch to a good form, and have them all arranged in a convenient handsome order—the lower growing varieties in front.

Soil for potting should be liberally provided for immediate use and for future wants, as it improves by long keeping.

Verbenas, Pelargoniums, Petunias, Salvias, and other bedding plants, should be layered now, or cuttings inserted to provide a supply for Winter flowering, and for planting out in the Spring.

Water—Give moderately, more to rapid growing plants, than to those which are resting. Syringe the floors and walls frequently, to induce evaporation.

Apiary in November.

BY M. QUINBY.

The mice will begin to commit depredations in the hives of some of the weakest stocks during the cool nights of this month. Their work may be known by crumbs of comb under the hives. Set traps for them at once, and have them out of the way, or they will prove troublesome during the Winter.... If feeding the needy stocks has been neglected till now, it will be necessary to improve every warm day, until it is completed. It can not be done in severe weather, without having them in the house, and then it is not good economy to disturb them. Prepare material for hives, that it may be well seasoned. Hives that are to be painted, should be finished as long before hand, as possible, even now would be none to soon. Bees seem to dislike the odor of oil. A *dark* color should be avoided. Three or four of the lighter colors are better than only one, and when such hives are used, the different colors should alternate, that each bee may better know its own hive. The young queens in their excursions to meet the drones, are very liable to get lost on their return, without some distinguishing mark about the hive, to designate where they belong..... Any one contemplating obtaining the Italian bee, should also have the movable comb hive. Without it, one half the advantage can not be realized. There are half a dozen or more patents on this principle, any one of which is superior to the common box, for those who know how to take advantage of them. The bee keeper with hives which enable him to bring every bee and cell into view, and then return them to the hive without injury, is much more likely to become interested in bee culture, than those having only the old box. We are told that the Italian bee is much more mild—less disposed to sting—than the common sort, if so, I see no good reason why *every* bee keeper should not understand the whole subject from center to circumference.

Our Exhibition Tables.

As announced last month, we have provided at the office of the *Agriculturist* ample tables for the free exhibition of noteworthy products from the Field, Orchard, Garden, etc. The design is to keep open a perpetual Show, where at all times of the year, vegetables, fruits, and flowers, in their several seasons, together with novel useful implements may be placed for public examination. During the past month, our tables have presented a most attractive display, and at this date (Oct. 18.) they are covered with a show which would do credit to a town or county fair. Our thanks are especially due to the several contributors. Thousands of visitors, both residents and strangers, have expressed their gratification with this new and appropriate feature of the *Agriculturist* establishment.

As before stated, our accomodations are ample, and the invitation is repeated to all who choose, to exhibit, free of charge, whatever appropriately belongs to this department, if of interest to the public.

In addition to sundry agricultural and horticultural curiosities, prepared birds, etc., and the articles alluded to in our last, the following are among the specimens shown during the past month.

VEGETABLES, ETC.—A large mountain Sweet Watermelon, 3 ft. in circumference, 20 in. long, wt. 43 lbs., from (label lost) Westchester Co. N. Y., ... Mammoth Beet, weighing 24 lbs., Rev. W. W. Howard, Kings Co., L. I.—Also Mammoth Beet Jr., 14½ lbs., from Westchester Co., N. Y., ... Large Cucumber, from Wm. M. Robbins, Suffolk Co., L. I. .... Honolulu Squash, W. A. F., Kings Co., L. I., ... Fig Tomatoes—beautiful clusters, W. F. Heins .... White Egg Plants, fine specimens, W. F. Heins .... Japanese Egg Plants, named Chinese by others, a very showy ornamental vegetable somewhat resembling the Tomato in growth, W. S. Carpenter, and R. L. Allen .... Kohl Rabi, very fine growth, W. Darmstadt, N. J. .... Mottled Corn, very singularly marked, from seed obtained of the Iroquois Indians in Western New-York, W. S. Carpenter .... Fine ears Yellow Corn, planted May 24th, harvested Sept. 15th, Chs. E. Parker, Queens Co., N. Y. .... Dent Corn, excellent specimens, Gov. A. J. Rush, Iowa .... Devereux, Improved King Philip and Golden Drop Corn, W. S. Carpenter .... New California Squash, (77 lbs.); New Cuba Squash, of about the same weight, W. F. Heins, N. Y., also Honolulu and Golden Japan Squashes, and fancy Gourds, by same .... Lot of Peach Blow Potatoes, 19½ to 24½ ounces, averaging 21½ ounces each, S. B. Conover, West Washington Market, raised in Monmouth Co., N. J .... Long White French Turnip, Improved Long Orange Carrot, and Blood Red Onions, J. E. Macomber, R. I.

FRUITS.—Apples, 60 named varieties including very fine specimens, W. S. Carpenter. .... Pound Sweet Apples from a full bearing tree, over 30 years old, J. M. Gardner, Westchester Co., N. Y., ... Porter and Russet Apples, G. Banks, Queens Co., N. Y., ... Russet Apples, very fine, A. P. Cummings, (Ed. N. Y. Observer) Westchester Co., N. Y .... Gloria Mundi Apple, weight 3½ lbs., W. S. Carpenter. Pears, a fine collection, 15 varieties, Thomas W. Field, Queens Co., N. Y., also 20 varieties by W. S. Carpenter .... Grapes, Child's Superb, grown at Hastings, Oneida Co., Dr. S. S. Fitch .... Diana and Concord, W. S. Carpenter .... Syrian, a magnificent cluster, weighing 7½ lbs., grown by Lathrop & Munson, Bridgeport. They were afterwards taken to the table of the Prince of Wales, who was at that time in this city. In addition to these, a cluster from the same vine, weighing 5 lbs., is now on exhibition. The vine is 3½ years old, and has this year borne 13 clusters, the largest weighing 7½ lbs., as noted above, the smallest 3½ lbs .... A magnificent Quince, 11 inches in circumference, W. T. Hemmenway, Flushing, N. Y.

FLOWERS.—A fine display of cut flowers from the proprietor's grounds at Flushing. Also beautiful bouquets brought in by E. A. Wright, Queens Co., N. Y. .... Dahlias, very perfect specimens, some 20 varieties, A. P. Cummings, Westchester Co., N. Y. Also a beautiful collection of Dahlias, many of them new, H. F. Krause, (of N. Y. Central Park) N. Y. .... Glass Flowers, and Fruits, a splendid vase filled with a beautiful collection of flowers and small fruits, made entirely of glass—a rare parlor ornament, J. F. Bode, N. Y.

MISCELLANEOUS.—A pair of living Humming Birds in a glass cage, J. Bode, N. Y.

Improving Prospects for Farmers.

We are happy to report that the present prospect of good prices for farm produce is exceedingly favorable. The harvests in Great Britain have turned out poorly, and the export of wheat, flour and corn, is now very large. For further items see our market review, which is prepared by a competent reporter, who spends his whole time in watching the leading produce markets.

Look out for Humbugs.

We have good reasons for offering a word of special caution to our readers, 'about these days.' At least half a dozen schemes for extensive swindling have come to our knowledge during the past month. "Private" and "Confidential" circulars by the million, are now being manufactured in this city. Great numbers of these are daily sent off, but the business is to be largely increased as soon as the excitement of the Presidential election is over. There is scarcely a family in the United States or British Provinces, whose Post office address is not recorded in from one to a dozen establishments in some of our large cities, and tempting, plausible circulars will be sent through the mails to them, offering all sorts of inducements to get their money.

In lottery and gift enterprises there is nothing new to be specially noted—each scheme, no matter how tempting, is so much of the character of a hundred others that have gone before, that it is surprising how there can be found foolish persons enough to keep these humbugs alive.

One of the most wily schemes to be pushed this Autumn and Winter, is the offer of so-called gold articles, such as magnificent "gold pencils," pens, etc. A few statistics obtained at one of the manufactories of these articles, show that they are being turned out by the ten thousand. A "gold pen and magnificent case," is stamped out of some cheap metal, and then galvanized over with the thinnest possible film of gold. The whole is done so skillfully, that the common observer will find it utterly impossible to distinguish between a bona fide article worth $3 to $6, and the bogus one costing 6 to 15 cents! The outside film of gold, though less than the two-hundred-thousandth part of an inch in thickness, is yet enough to cover up the inside base metal, and protect it from the usual acid test, while the filling of cheap metal prevents detecting the deception by the weight. We have seen a pen and case that cost 16 cents to manufacture, that was offered as a $3 premium or "gift" and no one but a practical goldsmith or jeweller could detect the deception. The same remark applies to various other gilded (not gold) articles.

These humbugs and many others were so thoroughly exposed in our previous volume that we have deemed little on this topic to be needed during the present year. It now looks as if it would be soon necessary to again go into a regular overhauling and exposure of a lot of new "humbug enterprises."

Let it be remembered, first, that the more splendid and plausible the scheme held out to the public, the greater is the concealed deception; and second, that if one is led to open a correspondence with these humbug operators, even out of curiosity only, there are ten chances to one that the "wool will be pulled over his eyes" and that in the end, he will be "taken in and done for."

SEWING MACHINE AND OTHER "AGENCIES."—Since writing the above, a gentleman from Pennsylvania called with one of the circulars alluded to, asking him to act as agent for a new Sewing Machine, to be sold at $16 each, and offering him $6 profit on each machine. He was requested to send $10 for a sample to show. Happening to be just coming here, he called on us, and learned that the machine was just like others formerly sold under another name, for $5 each, and good for nothing at that. It is doubtful also, if anything would have been heard from the $10 had it been forwarded. There are several such agencies offered, for sewing machines and other articles.

Warming Dwellings, School-Rooms, Churches, etc.—An Important Hint or Two.

A world of comfort, to say nothing of health, would be saved to the great mass of people, if they understood one simple philosophical principle, and applied that knowledge to the warming of their dwellings. Let us examine the matter a moment, now that all are providing for the approaching cold weather. We will try to explain the principle referred to, so as to be understood by the unscientific reader.

Common air has the property of absorbing a certain amount of moisture or water, which it secretes or hides, and it becomes insensible, so to speak. The *amount* of water, which a cubic foot, or a room full of air can thus secrete *depends upon the temperature of the air*, that is upon how hot or cold it may be. Thus, at the common Summer temperature, say 70°, a hundred cubic feet of air absorbs or renders insensible to sight and feeling, about 794 grains of water. Reduce the temperature of this air to the freezing point, 32°, and it will hold only 235 grains of water—the rest will be deposited on the colder surfaces. On the contrary, raise the temperature of the air to 100°, and it will then absorb 1912 grains of water.

Illustration.—A room, 15 feet square and 10 feet high, contains 2250 cubic feet. Therefore, in such a room the air at the freezing point (32°) would contain 5288 grains of water, or a little more than three-fourths of a pint. Raise the heat to a comfortable warmth, say 70°, and the air will absorb and secrete 17,865 grains of water, or over 2½ pounds (2½ pints.) At 100° it would absorb 43,020 grains, or over 3 quarts. More than this must be provided for, or the air will be dry and disagreeable. On a warm Autumn or Spring day, the air will appear dry and clear, though it contains a large amount of moisture. But at night the cold ground reduces the temperature of the lower stratum of air, and the result is that the moisture, which during the day was insensible, is now *sensible*. The air is damp, and the moisture is frequently visible in the form of fog. There is really no more moisture in the air, but what was concealed when it was warm during the day, is now made sensible. As soon as the sun heats up the air sufficiently, it again conceals the moisture, and the atmosphere is clear. On a hot day the air is dry and clear above us, and not a cloud is to be

seen. Presently we see mists and clouds gathering over-head. These clouds do not come from a distance, but they are formed right in the air which but a few hours ago was apparently so dry and clear. The reason is, that by some means, say by a cold current of air, the temperature of the air has been reduced, and the moisture, before invisible, is now visible. The minute particles of water unite together, so as to be seen in the form of cloudy vapor; and if the reduction of temperature goes on, the particles of water will condense still further, and form drops of water, that descend as rain.

Now for the application. The air in a room contains a considerable quantity of water. If the room be cold, the air feels damp. Close the room, so that the air can not escape, nor be mixed with fresh air from without, and then heat it. As the temperature rises, the moisture will leave the walls, and the entire air of the room will become dry. The water has not left the room during this warming process, but it has been secreted in the air itself, which is now like a dry sponge. It picks up the particles of moisture from the skin and it feels dry and husky. The air we breathe, also dries out the lungs, so to speak. Bring in a dry, cold body, say a pitcher or tumbler of water, and this will cool the adjacent air to such a degree that it will condense the moisture that was insensible while the air was warmer.

In a room heated by an open fire place, there is a large current of air going up through the chimney, and consequently a constant change of air in the room, and the lack of moisture is not felt.

In a room heated by a stove with a narrow draft, there is less consumption of air, and as the confined portion becomes heated, it secretes the moisture of the room, and a dry unpleasant atmosphere is the result. Set a tea-kettle or other vessel on the stove with a little water, so that it will boil briskly, and the watery vapor will soon supply the place of that which has been secreted, and the result will be a warm, moist, genial atmosphere. A fire should never be built in a stove without placing upon it, at once, a wide open vessel of water to keep the room saturated with vapor. Even then, the air will be dry and unpleasant at first, until the water is hot enough to send off vapors or steam freely.

Heating by steam circulating in iron pipes is, on one account, the most unpleasant, not to say unhealthy, methods of warming rooms, and simply because of the difficulty of placing water upon the pipes so as to be rapidly evaporated. Those who are using steam pipes, will find great relief if they will keep moistened cloths hanging over some portions of the pipe, to give out a supply of moisture to the air. Without some means of supplying extra moisture, steam pipes are decidedly objectionable.

We feel quite sure that the method of heating by hot air pipes from a furnace, is the most convenient, agreeable, and even healthful, *provided always* that suitable arrangements be made to keep the hot air constantly saturated with moisture. Without this, the hot dry air absorbs all the moisture from the walls and furniture of the room, and from the surface of our bodies, and from the lungs. Our own dwelling is heated throughout by a furnace in the cellar. A constant current of *fresh* air is conveyed from without to this furnace, where it is warmed by a large heating surface *outside* of the burning coal. Tin pipes convey this *fresh* warm air to the several rooms, in large or small quantities as required. But in the upper part of the furnace, directly over the fire, a large wide open vessel is kept constantly supplied with water, the vapors of which saturate all the warm air ascending to the rooms. The result is, the air is moist, warm, and what is quite important, it is constantly renewed and fresh, which is not the case when the confined air of a room is heated by a stove. We thus get rid, not only of the trouble of building and watching the fires in half a dozen rooms, but also of the dust and ashes necessarily attending their use. There is also an economy of fuel, for the large heating surface of a good furnace appropriates the heat better than the ordinary single stoves. Let the hundreds of families who have unused hot air furnaces in their dwellings, try the effect of providing an abundant supply of moisture along with the heated air.

Any one may readily convince himself of the difference made in the air by the addition of watery vapor. Let two rooms be equally heated by stoves. In one let there be damp clothing, as on an ironing day, while the other has no provisions for supplying vapor. The air in the one room will be dry, husky, and exhausting; in the other it will be as genial and pleasant as a Spring morning.

For the American Agriculturist.

Experience with an Ice House.

It may be interesting to some of your readers to hear my experience in packing ice to keep through the Summer. Before building, I made inquiries of architects and others, as to how an ice house should be built. Some said "have it underground", others "have it above ground," so I concluded I would try both. I built my ice house six feet under ground, and six feet above, eleven feet long and seven feet wide, with a window and blind at each end, about 18x24 inches, giving good ventilation. I used four-inch studs, and filled in to the peak, with sawdust. An experienced hand filled the house, which will hold about twenty tuns. He put joist across the bottom, and packed the ice on straw, using it freely at the sides, and top.

As soon as warm weather commenced, the ice began to melt, and by the first of July, all that was above ground, had been used up, or had disappeared by melting. The underground ice kept better, but all was gone by the middle of August.

Some people said it was because it was a new house, and that it would keep better the second year; I believed it, and tried again; but the result was the same—the ice was gone by the middle of August, and the straw rotted.

Some one then suggested that the thickness of sawdust was not sufficient, and that the heat from the bottom caused it to melt. So I put in another set of studs, and filled in again with sawdust, put down a double floor, and lined that also. I then felt sure it would keep; although by reducing the size, I could only put in 18 tuns. That year it kept till the first of September. I was induced to fill it in the same way again, because they said the ice was not solid the year before, and did not keep in any of the houses. The result was the same, the ice was gone by the first of September.

By that time I had become convinced that straw was not the right thing to put round it, and that unless I could do better hereafter, I would buy ice during the Summer.

I concluded to try once more, and use sawdust. Last Winter I put about six inches of sawdust on the floor, and then packed in the ice, leaving a space of four inches between the ice and the sides, which was filled in with sawdust, and the top covered with about six inches also. On the first of September of this year, we had not used it down to the level of the ground even, and could perceive but very little moisture on that which was taken out daily. At this time we are using it freely, and it comes out in solid cakes. I am not certain but it might keep well, if packed in an empty stall with plenty of sawdust round it, or even in a pen out of doors, if well covered with the sawdust and protected from rain.

YONKERS.

How to Keep Eggs.

A correspondent at Goodwinsville, N. J., has had good success in keeping eggs in the following manner. With an inch-and-a-half auger, holes were bored in shelves, which were put up in a cool cellar protected from frost. The eggs, as fast as collected, were set in these holes, with the little end downward. Some were used in three months, some in six months, and the balance in a little over a year from the time of storing, and all were reported as perfectly good. The cellar in which eggs were kept so well, must, we think, have been very dry and cool. It would be well for those making this experiment to try a small quantity at first; they might not keep as well under all circumstances, as in the case above.

ALBANY BREEDING ASSOCIATION'S SALES.—The annual Auction Sales of this Association for the present year, were not satisfactory or encouraging. A severe storm interfered with the transactions on the day first announced. On the second day, a month later, Oct. 10, the lateness of the season and other causes prevented active bidding, and many animals went for about half the price nominally set upon them.

Of *Horses*, 31 were sold for $5,050, viz.: 2 stallions for $1000; 11 mares for $1,800; 2 three year-olds for $300; 8 two-year-olds for $1,165; and 8 yearlings for $785.

Of *Cattle*, 25 were sold for $3,158; viz.: 8 bulls for $515; and 17 cows and heifers for $2,634. Considering the quality, pedigree, etc.; these prices were very low, and considerably under the real value of the animals. The *Sheep* and *Swine* were not sold.

MANURES PURCHASED ANNUALLY IN ENGLAND.—Prof. Anderson gives the following estimate, of the amount expended annually by the farmers of Great Britain, for artificial manures.

Guano	$12,500,000
Nitrate of Soda	1,125,000
Bones	1,200,000
Superphosphates	2,100,000
Coprolites	1,875,000
Sulphate of Ammonia	750,000
Other Articles	500,000
Total	$20,050,000

This expenditure coupled with improved methods of tillage accounts for the fact, that the average product of wheat in England has been raised from 8 or 9 bushels to nearly 30 bushels per acre.

VETERINARY PHYSICIANS WANTED.—Every farmer should rejoice that Veterinary science is taking its proper place among the professions. But we need ten men skilled in this branch of study, where we now have one. If properly located, they would find it a paying business. Here is a fine field open for our young men, and one worthy of the highest order of talent.

For the American Agriculturist.

How to Tame Bees.—"Ten Dollars worth" of Information Gratis.

Many persons while watching an exhibitor of bees in a movable frame hive, at the Fairs, taking out and returning the frames of combs covered with bees, and, as they hang in clusters from the frames, removing them by handfuls, with no more apparent fear than though they were so many flies, have regarded the process as a sort of witchery; they have thought that none but the operator, and possibly a few others, could have such perfect and fearless control over their bees. Instead of this being actually the case, it is the reverse; for no person that I have yet seen, who has followed the directions for "Taming Bees" that I purpose to give, has been unable, after a little practice, to have full and absolute control over them. I understand that a speculator in Canada has made the proposition "to instruct bee-keepers in the art of taming bees for the exceedingly low price of $10 each!" But the readers of the *Agriculturist* can save their $10 and learn the whole art by observing the following directions, which the writer has practised for years.

The whole art of "taming bees" is embodied in the following: 1st—A honey-bee filled with honey or "liquid sweets," will not sting of its own accord. 2nd—Bees when frightened, will generally fill themselves with honey; and, if given "liquid sweets," will invariably accept of them. Bees may be frightened thus: 1st. By confining them to the hive, and rapping the sides of it lightly with a small stick, or the palms of the hands. At first, the bees will try to get out, but finding that impossible, they will then rush to their stores and fill themselves with honey. 2nd. By blowing upon them the smoke of punk (rotten wood), tobacco, or cotton rags.

What is termed "liquid sweets," is water well sweetened with honey or sugar. Sugar is preferable, as bees from neighboring hives, or those in close proximity, are not so readily attracted by it.

For many years I used mainly the smoke of tobacco and cotton rags, but this season, in all my operations I have used nothing but the smoke of "punk." This is not so pungent as that of tobacco.

In order to make the foregoing directions a little more clear, I will now set forth the *modus operandi* of taming the most irritable colony of bees, in the Langstroth hive; which will answer, somewhat modified, for all colonies in all kinds of hives.

Set the punk on fire, and blow a little smoke into the entrance of the hive. This will cause the bees at and near the entrance, to retreat and go among the combs. Now, take off the top cover, and blow enough smoke into the holes or slats of the surplus honey receptacle cover, to cause all the bees to go below the tops of the frames, when this cover may also be removed. Blow sufficient smoke upon the bees to keep them below among the combs. Unless the colony be very populous, the bees will now nearly all be found hastily filling their sacs with honey, and, will generally be ready to operate upon in from five to fifteen minutes. Should the operator desire to commence taking out the combs as soon as possible, he may sprinkle the bees with the sweetened water. Those not filling their sacs from the cells of honey, will commence at once to gorge themselves with this preparation. I seldom have occasion—except at the Fairs—to use the "liquid sweets." I would advise beginners to use a bee-hat until they have had some experience—which may then, at times, be discarded.

Reader, just operate upon a colony in the way described, you will probably be surprised to find that you can more easily and readily subject the most irritable colony of bees to your control, than can Rarey, an ordinary animal of the equine race. M. M. BALDRIDGE.

Niagara Co., N. Y.

For the American Agriculturist.

Progressive Bees—Their Operations Explained.

In the September No. of the *Agriculturist* is a communication from "B." headed, "Progressive Bees," in which the writer states that he had a "first swarm" issue on the 23rd of July, and, on the 27th—four days after—a "second swarm" also issued. He desires that some correspondent of "long experience" will give information as to what has caused "this state of things."

As a general thing, second swarms do not issue until the 8th or 9th day after the first; but, it is frequently the case that second swarms issue much sooner, and occasionally somewhat later. When bees are ready to swarm, it will be found on examination of the combs, that there are one or more *sealed* royal cells—the inmates of which will be ready to emerge on the 7th or 8th day thereafter; much, however, depends on the temperature within. The old or matured queen always leaves with the first swarm—the second being accompanied by one or more of the first hatched queens. Now, unless the weather be favorable at the time the first swarm is ready to issue, they will defer swarming till a more suitable time, and will sometimes abandon the project for that season. First swarms have been known, on account of rainy or otherwise foul weather, to defer swarming after the royal cells were sealed, so that the second swarm necessarily issued earlier than nine days after the first. Second, and all after swarms accompanied by young queens, are not so particular about issuing on account of bad weather, as first swarms accompanied by old queens.

Again, queens occasionally die from sickness or old age just before the swarming season commences, and the bees instinctively start one or more royal cells, so as to supply her loss. If the colony be populous, a swarm will generally issue with the first hatched queen, and the second swarm may be expected on the third or fourth day thereafter. It will be obvious that either of these cases will answer the inquiries of "B."

Niagara Co., N. Y. M. M. BALDRIDGE.

A Concert by the Cows.

When, as it oftentimes happens, we hear the tinkle of a sheep-bell, or cow-bell on the hills, or in the woods, we are reminded of the many pleasing allusions of the British poets to this cheerful rural sound. The bells, it is true, are not generally as musical as they might be, yet they strike a pleasant chord in the heart of every one who loves the country. It has often occurred to us that if the manufacturers of these bells would make some of a superior quality of tone, not a few farmers would be glad to buy them for their herds. It would be a pleasant sound for the traveler, to hear from a distance, as the animals wended their homeward way at night, and it would gladden the ear of the proprietor and his family. We have heard a few such bells.

Within a short time, we have seen it stated that a certain English nobleman has suspended a musical bell on the neck of all his cows, each bell tuned to a different note of the scale, and the whole running through several octaves. A visitor to this farm is charmed by the music, as well as by the sleek sides of the cattle. Sometimes he hears several notes in unison, then a slight discord, and then a sweet harmony, and all varied by distance and by the rising and falling of the breeze.

Such harmonic bells will add nothing to the weight of one's butter and cheese, but they will do something just as good. They will add a charm to farm-life, and weave around it one more of those pleasing associations which serve to attach men to the country and to the culture of the soil. So, tune up a first-rate chime of bells for our herds!

Fastening Tires with Oil.

[For some time past a paragraph has been going the rounds of the papers, recommending the soaking of wagon wheels in oil. We hardly thought this more worthy of attention than ten thousand other similar plausible but fanciful items that are extensively copied, and go to make up so large a portion of the paste and scissors columns of the newspapers. But a subscriber seriously asks us how to construct the oil heater required; for himself and neighbors have concluded to prepare their wagon wheels in the manner recommended. As an answer, we copy below what the N. Y. Coachmakers' Magazine says of it:

"The following silly paragraph is credited to the *Southern Planter*. A correspondent tells the editor:—"I ironed a wagon some years ago, for my own use, and before putting on the tires I filled the felloes with linseed oil; and the tires have worn out, and were never loose. I ironed a buggy seven years ago, and the tires are now as tight as when first put on. My method of filling the felloes with oil, is as follows: I use a long cast-iron oil heater, made for the purpose; the oil is brought to a boiling heat, the wheel is placed on a stick, so as to hang in the oil, each felloe one hour, for a common sized felloe. The timber should be dry, as green timber will not take the oil[and we will add, none but a *green 'un* will try the experiment.] Care should be taken that the oil be not made hotter than a boiling heat, in order that the timber be not burnt. Timber filled with oil is not susceptible of water, and the timber is much more durable. [But here comes the funny part of the story.] I was amused, some time ago, when I told a blacksmith how to keep tires tight on wheels, by his telling me it was a profitable business to tighten tires; and the wagon-maker will say, it is profitable to him to make and repair wheels; but what will the farmer, who supports the wheelwright and smith, say?" Whatever they may say, we say, fearlessly, that it would require at lest ten "cullored pussons" to hold the felloes on the spokes, that's all!

PUBLIC SALE OF LANDS IN IOWA.—A proclamation has been made by the President for the sale in Nov. next of 1,125,000 acres of public lands in the Northwestern part of Iowa. These lands embrace some of the best soils in the State on the head waters of Des Moines river.

Harvesting Beans.

It seems to be supposed by some, that beans should remain in the field ungathered, until they are fully ripe and ready to shell out. Experience shows that this is neither necessary nor wise. Watch for the time when the leaves of the plant begin to turn yellow, and the pods have become plump and hard. Then pull and stack them up in the field loosely, putting a few stones or cross-pieces of wood underneath each stack, to keep the bottom tier dry, and to promote ventilation of the whole. Do not forget to stake them firmly, to prevent the stacks from blowing over.

Beans so managed, will ripen a good deal after being gathered, and will command a much higher price in market than if they had been left standing longer, and so been nipped by the frost, and draggled and soaked in the mud. Let them remain thus stacked until dry enough for thrashing.

How Linseed and Cotton Seed Oil, and Oil Cake are Made.

The cultivation of flax belongs to the age of homespun, and has gone by, as a general crop in this country. Fifty years ago it was common on almost every farm, and the brake, the hatchel, the swingling board, and knife, were as much farming tools, as the dung fork and the plow. In-doors were the spinning wheel for flax, and the loom, where the linen and tow cloth were made for Summer wear. Flax seed was then abundant, and oil mills for pressing the seed were to be found at convenient centers. But many of the present generation have never seen such an establishment, and have no idea of the process of making linseed oil. Though flax is still raised in this country in particular localities, the crop does not meet our demands. Large quantities of seed are imported, mainly from Russia, England, and the British East Indies. In the year 1855 over a million bushels were brought to this country from the British East Indies alone.

In making the oil, quite a variety of machinery is used—more or less expensive, according to the enterprise and capital of the manufacturer. The seed is first passed through iron rollers, to be crushed or ground. One of these rollers is made to revolve more rapidly than the other, which subjects each seed to a pulling, as well as crushing process. The meal is taken from the mill to the "chasers" where it is subjected to another crushing process, more severe than the first. The chasers are two large circular stones, about five feet in diameter and eighteen inches thick, rolling upon a third stone, in the manner of an old fashioned bark or cider-mill. These heavy stones start the oil from the meal, and to keep it from adhering to the chasers, it is moistened with water.

The meal is next put into an iron cylinder which is kept revolving over a fire until the water is evaporated. Much of the skill in the art of making oil depends upon this heating process. It must not be scorched, and yet it wants to be brought up to a high temperature, so that it will readily give out its oil. The presses are of various structure, some of them patented, and others not open to public inspection. In the one that we saw, the vats or hoops, holding about two bushels each, were placed opposite each other against two immense beams, or uprights, made fast in the foundations of the building. The followers were forced down upon the meal by two large levers worked by hydraulic power. The meal is kept under pressure about an hour, and the two presses work up about ninety six bushels of seed every twenty four hours. The mill is kept running night and day for six days in the week. The product is not far from two gallons of oil to a bushel of seed, a little more or less, according to the quality of the seed and the skill in pressing. The cakes as taken from the press, are sometimes sold by the tun without grinding. They are generally exported in this form. Where there is a market in the vicinity of the mill, the cakes are put under the chasers, and ground into meal, bagged, and sent to the feed stores. The price of the cake is from thirty to forty dollars a tun; ground into meal, it retails at about two dollars a hundred pounds. This is the favorite feed for fattening stock with the British farmer, and ought to receive more attention among us.

The process of making the cotton seed oil and cake is nearly the same. The seed of the Upland cotton is surrounded with a husk to which the cotton adheres. It is covered with a soft down after it leaves the gin, and in this condition it is purchased from the planter. The seed makes better oil and better meal when it is deprived of this hull and down. There are several patents for decorticating the seed. One is a stone mill, in which the seed passes between rough surfaces and the bark is rubbed off. Another is a steel mill doing the work more perfectly. After the hulling, the treatment of the seed is the same as for linseed. The yield of oil is less, being about ninety gallons to a hundred bushels of the Sea Island, or two gallons to fifty six pounds of the hulled cotton seed. The Sea Island seed does not need hulling.

The cotton seed oil is comparatively a new article. It has not yet a steady commercial value. The meal is growing in favor as an article of fodder. It is adapted to the same uses as the linseed meal, and is by many thought to be as valuable, though it sells for about twenty five per cent less. The manure made from the animals fed upon it, is richer in ammonia than that made from any other kind of stall feeding. There is already a considerable demand for it in England, and it can not be long before the export will exceed that of the linseed oil meal.

An Experiment in Grinding Cotton Seed.

We are convinced upon further reflection and inquiry, that the suggestion thrown out in our last issue upon grinding cotton seed in the common grist mill, is a matter of great practical importance to our readers in the South. If cotton seed brought to the North, deprived of its oil, and ground into meal is worth a dollar and a half a hundred, it ought to be worth much more upon the plantation, ground before pressing, where feeding stuff is in great demand.

The grand difficulty is in the business of grinding. The seed contains so much oil, that the common grist mill would probably clog with the pure cotton seed, and the conclusion would be jumped at, that the mill was unfit for the work. We wish, therefore, to suggest several experiments in grinding; first, a mixture of three parts of cotton seed to one of corn; secondly, an equal quantity of each; and thirdly, three parts of corn to one of cotton seed. The corn being hard and dry, will absorb the oil, and we think, keep the mill clean, so that it will do its work perfectly. Animals are not fond of the pure meal at first, and have to acquire a taste for it, by mixing it in small quantities with other palatable feeding stuff. When the taste is formed, they eat ravenously without any mixture. If our correspondent at Edward's Depot, Miss., who has suggested these inquiries, would undertake these experiments, and report them, we should feel greatly obliged. The manufacture and use of cotton seed meal upon the plantation, we are confident, will form a new era in the husbandry of the Gulf States.

How to Ventilate Stacks.

British farmers ventilate their stacks as follows: They fill with straw a bag, say 3½ ft high and 20 inches in diameter; place it vertically in the center, and stack around it. As the stack rises, they lift the sack, and so on to the top. In this way a chimney is formed in the center of the stack, into which the steam and gases generated, find their way and escape readily. This method might be adopted with advantage in stacking corn fodder.

For the American Agriculturist.

Experience in Reclaiming Worn Out Meadows.

It is often remarked by farmers that the grass on their older meadows has run out, and that they can not plant all their lots, and get round in time to prevent it. They practice keeping the land under the plow for two successive crops, before laying it down to grass again. Some take four or more successive crops; they manure well, as they should, but they do not consider that the rest of the farm is thereby robbed to keep a few acres in full bearing fertility Let any one do this for a dozen consecutive years on the same lot, and the injurious effect on his other fields will be unmistakably visible. My experience teaches a better method, because it increases the fertility of the soil, and renders it in future years more productive.

There is much land in our county, which, although not swampy, is too low and humid in Spring and early Summer, for making sound and profitable corn crops. When I emigrated to Susquehanna some twenty five years ago, I soon found I had several acres of such low, wet soil, in one of my lots. Twice, the grass thereon run out, and each time I had it up three years, under the usual way of treatment, taking off three successive crops. Each time I got a worse surface for the scythe, because I could not entirely subdue the sod; and beside, what was worse, I was evidently reducing the natural strength of the soil. When the grass failed again, I ordered it to be plowed of usual depth, perfectly, and without a balk. The furrows were rolled down and harrowed lightly, to fill up the spaces between; and then oats and timothy seed were sown and well harrowed in for one grain crop only. This was an experiment: I did not expect much—I was not disappointed; but the crop was worth, for feed, as much, if not more, than the hay could possibly have been. The next year the grass was greater than I had ever seen grown before, and of a superior quality. For five years after, the crop annually was equally good.

The next year the grass was evidently failing, and I broke the lot up again exactly as before. This was in 1858. The oat crop this time was full and good, having had the benefit of the old sod; and this year, the grass was fully equal to the yield of any former year; besides, the sod

now appears to promise for the future better than at any time before.

I have twice since treated some of my corn lands in the same way, obtaining each time superabundant crops, even greater the first time of mowing than I formerly got after two grain crops. One of our most practical farmers in an adjoining town, about the same time, yet unbeknown to me, commenced the same process of tillage on a large lot of humid soil, in every respect like mine, which had nearly become nonproductive. He is getting extra large crops of hay annually; and he now considers that lot as one of his best, which had long been his poorest, having been least productive.

Susquehanna Co., Pa. S. A. NEWTON.

Tim Bunker at the Farmers' Club.

HOW TO GET RICH BY FARMING.

[Perhaps it might be more modest to omit the following letter from the 'Squire, but it contains some good hints. And here allow us to remark, that these letters, which have been continued so long, and we expect will be continued hereafter, are none of them 'got up' in our office, as some have supposed, but they are veritable letters, sent to us from Connecticut. We are happy to know, that the plain, homespun truths here told, have been of great value to thousands who have read them not only in this journal, but in many others, into which they have been copied.—ED.]

MR. EDITOR: I have not had much to say lately about our farmers' club, that our minister, Mr. Spooner, and a few of us started in Hookertown, a few years ago. Well you see, at first, the thing didn't take very well. It looked kind of bookish, and men accustomed to the plow handle didn't exactly like to come to the schoolhouse where we generally hold our meetings in the Winter, to learn farming. Some of them called it Mr. Spooner's school, and some Tim Bunker's pew. Jake Frink who has never forgiven me for buying that horse-pond lot, and draining it, called it the Horse Pond Convention. In the Summer time we meet around at the farmers' houses, generally once a month, some Saturday afternoon, so as to look at the crops and stock, as well as to discuss questions. Well, by a little coaxing and management, we have got most of the young farmers in the neighborhood of the village interested, so that we frequently have twenty at the meeting, and that makes about as large a company as a plain farmer cares to talk to. My immediate circle of friends are among the most punctual members. Mr. Spooner and Deacon Smith are always on hand to keep things straight; Seth Twiggs comes up to see what he can through his clouds of smoke; Uncle Jotham Sparrowgrass limps around with his invaluable scraps of experience from Long Island, and Tucker, Jones, and Jake Frink drop in to see what new exercise is going on in Tim Bunker's pew.

The club is getting to be a good deal of an institution, if not a great one, in Hookertown. The last topic talked up was "How to make Farming Profitable." We had a stranger into the meeting from Massachusetts, Mr. Pinkham; and he took the ground that it was not profitable, and for his part he did not believe it could be made to pay. He said "he had got a little property together, but he did not make it by cultivating the soil, though he had worked at it thirty years steady. He had a farm given to him to start with, and if he had done nothing else but farm it, he believed he should have run in debt every year. He had worked in the Winter and on rainy days at shoe making, and all that he was worth over and above what he inherited, was owing to his trade."

Uncle Jotham guessed Mr. Pinkham was about right if men managed their farms in the old way. He had known a hundred farmers or more, on the Island, and there want a half dozen of them that got ahead any, until they begun to catch bony fish. This made manure mighty cheap, and plenty, and a man must be a fool that couldn't get big crops with manure a plenty. But to have nothing but barn yard manure, and next to none of that, he didn't think a farmer could more'n make the ends of the year meet.

"I dont believe he can du that," said Jake Frink, "unless he has better luck than I have had.—I've worked hard as an Injun on my land, for well nigh forty year, and I hain't got so much land as when I started. I hev ben allers comin short at the eend of the year, and every now and then, have had to sell off a chunk of land to some lucky naber. And it allers happened, that I sold jest the best lot I had, but didn't see it till arter it was gone. That horse pond lot that didn't use to raise any thing but sour grass, bull rushes, and hard hack, now bears three tun to the acre of first rate herdsgrass. Some folks make farming pay, but I never could. Some how it don't run in the blood."

Mr. Spooner said farmers did not have capital enough to carry on their farming profitably. No man can be successful in business without capital. The merchant has his years of discipline as a clerk, and earns a small capital before he sets up for himself. But the farmer often runs in debt for his farm, and has hardly money enough to buy his stock and tools. This keeps him troubled all the time. He is afraid to hire help, to purchase such new machines as he needs, and to make those improvements in his land which are essential to profitable husbandry.

George Washington Tucker thought there was a good deal of truth in Mr. Spooner's doctrine. "I don't know zactly what the parson means by capital, but if he means money, he's jest right. I never had a red cent tu begin with, and that's the reason I haint got along no better. As they used to say in sifering, 0 from 0, and 0 remains. It's jest so in farming."

"Them's my sentiments," said Jones. Now the fact is, both Tucker and Jones are lazy, and never did a good day's work in one day, in their whole lives. The cipher lies in the persons of those two individuals, and not in their purses.—I didn't say that in the club. If I had, I guess I should have spoke in meeting.

I did have to say, however, that I thought the trouble about bad farming lay a leetle deeper than the want of capital or the want of labor. "The want of *brains* I guess lies at the bottom of all the unprofitable farming. What is the use of a man's having money, if he does not know how to apply it to his business? What is the use of a man's having labor, if he does not know how to direct it, so as to make it pay? Farmers do not read enough about their business, and reflect upon it. I know of a dozen farmers who have from one to five thousand dollars in the bank, and they have occasion for the use of twice that sum in order to make their farms productive. Capital in the bank only pays six or seven per cent. In the bank of earth, if wisely invested, it will pay ten per cent. I have got fifteen per cent on what I have laid out on the horse-pond lot."

"Above all expenses?" asked Mr. Spooner.

"Yes above all expenses, and I expect to get it for years to come. I do not find it difficult to make land pay the interest on three hundred dollars an acre, and any man who will read and digest the *American Agriculturist* can do the same thing."

"Where is that paper printed," inquired Pinkham. "I've heard tell so much about that paper, and about improvements Squire Bunker has made since he began reading it, that I've a notion to take it myself a year, and see what it is, any way."

"At 41 Park Row, N. Y., by O. Judd, and it only costs a dollar a year, and often you get a dollar's worth of seeds thrown into the bargain."

"You say that 'cause you rite for it Squire," said Seth Twiggs, to poke fun at me.

"It's true I write some about Hookertown, but what I get out of it that I dont write, is worth about five hundred dollars a year to me; and I guess this town is worth ten thousand dollars more in solid cash for the ideas they have got out of the *Agriculturist*.

"Judd's a hull team!" ejaculated Twiggs, as he knocked his pipe on the round of his chair, with an emphasis that sent the bowl spinning half way across the room, "and if that paper hasn't got a half a dozen big horses hitched on on to it, as strong as Pennsylvania roadsters, and as fast as yer Morgans, then I'm no judge of what's in it. You'r a bennyfacter, Squire Bunker, for getting me and so many to read that paper."

Well, I guess they'll all find it out by and by. Just look of Dea. Smith's new underdrained ten acre field, where he harvested forty bushels of wheat to the acre this Summer. Look of Seth Twiggs garden with the tile in, and subsoiled. He raises a hundred dollars worth of stuff where he used to raise less than twenty. Look of Jake Frink's new watering trough in his yard, and Uncle Jotham's drained musk-rat swamp, and new barn cellar; and, to cap all, my reclaimed salt marsh cutting three tun of hay to the acre. I made two thousand dollars by that operation and I might have thunk, and thunk my brains out, and I never should have thought of that, if it had not been for the paper. Improvements are going on all over the town, and it is because they read the *Agriculturist*. All the way up to Shadtown, I can tell just what farmers read it by the looks of the farms and buildings. You see then, my recipe for getting rich by farming is, to take the paper, read and digest inwardly, and apply outwardly.

Yours to command,

TIMOTHY BUNKER ESQ.

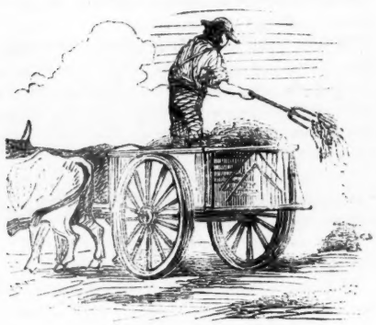
Hookertown, Oct., 1860.

Deep Plowing—Opposite Results.

Wm. D. Shelden, of Wayne Co., gives in the Rural New-Yorker the result of two experiments in subsoiling. He purchased a farm a few years ago, that had been worn out by shallow plowing. The first year he sowed five acres to oats, upon a ridge which had a gravelly hard pan some six inches below the surface; he plowed shallow and the crop was hardly worth cutting. The next year he used the Michigan Double Subsoil Plow, running it ten inches deep, which brought up some four inches of hard pan. The oats on an average were four and a half feet high—a very large growth. Another lot on the same place, on a flat, he plowed about a foot deep. The soil was a black sand. The result was the reverse of the above—it nearly spoiled the land.

There is goodness, like wild honey, hived in many strange nooks and corners of the earth.

AGRICULTURE VERSUS POLITICS.



Farmer A. enriches his farm.

Mr. B. discovers a "crisis" in the country.

Farmer A. is too busy to attend the political meeting.

Mr. B., having secured the nomination for Assemblyman, harangues his fellow citizens.

Farmer A. on election day, having voted, gathers his noble crop of potatoes.

Mr. B. is very busy on election day.

Farmer A.'s townsmen, unsolicited by him, have elected him to the Legislature, and come to offer their congratulations.

Mr. B., having been elected to stay at home, finds his potato crop not worth digging.

The "Politics" of the *Agriculturist* are pretty clearly set forth in the above hasty sketches, prepared by our humorous artist, which will not be deemed out of place now when almost everybody's attention is called to such subjects. Our *creed*, expressed in due form, might be stated thus: We believe in heavy manuring, in seasonable and thorough cultivation, in large potatoes and plenty of them, with other crops to match. We believe that the industrious pursuit of an enlightened husbandry will conduce to the prosperity of the country, and that *those who manage their own business successfully, can be most safely entrusted with public concerns.* We don't believe it pays a man to neglect his private business to seek an office, and we wish, as the artist has indicated above, that such characters might be elected to stay at home, and that good men and true might be selected for places of trust. Not that a knowledge of public affairs should be neglected. It is the right and duty of every American citizen to watch the doings of his government, to study the principles on which it should be administered, and to vote understandingly and in accordance with his convictions.

Maine Lands not worn Out.

A subscriber writing from Cumberland Co., Me., says. "Here where I am writing, only 38 miles northwest from Portland, we have 25 to 30 bushels of wheat raised on a single acre in many instances this year, and this, upon our *old lands* which were supposed to have been pretty much exhausted of their wheat-bearing properties. Within a circle of one mile from my house, containing about 20 farmers of moderate, and several of them of quite small means, it is estimated there are not much less than 2000 bushels of wheat raised the present season. This is not much in a wheat growing country, but "Down East" where for the last 25 years we have had to look westward for nearly all our flour, we think it is something for self gratulation, especially when we believe it is principally owing to improved methods of cultivation, increased quantities of good muck manure, and the general diffusion of scientific knowledge pertaining to farming."

["Old lands" are not like old horses, which must inevitably become useless; feed them properly, and they will retain their strength. Happily for the country, this is being discovered and acted upon, though to a less extent than we hope to see at no distant day.—Ed.]

Agricultural Progress of California.—Up to the year 1854, California imported the greater part of her breadstuffs: now, enough is grown not only to satisfy the home demand, but large shipments are annually made to Australia, Chili, and even to New-York! A Chilian reports that the flour of California is sold at Valparaiso cheaper than the native produce, notwithstanding that in Chili, farm labor is worth but eighteen cents a day, and the country has been settled by the whites for two hundred years.

Plowing in Wheat and Manure.—The following method of plowing in Wheat, which has been practised for twenty years by a farmer near Dundas, C. W., is given in the Genesee Farmer. After the land has been prepared in the ordinary manner, manure is spread on the surface early in September, the wheat sown on immediately and both harrowed once over. The wheat and manure are then plowed under together. The wheat so put in has invariably yielded one third more than that sown in the usual manner the same year, and though it takes a longer time to make its appearance, it is never winter-killed, nor is it later in ripening.

Spaying a Mare.

Dr. Dadd, V. S., just informs us that he has recently performed the novel operation of spaying a mare, (removing the ovaries). The mare was six years old, and belonged to Charles H. Ballard, of Hartford, Vt. We believe this is the first case of the kind in this country, if indeed it is not the first one ever tried, and Mr. Ballard is entitled to much credit for offering so valuable an animal for the benefit of science, as it has been generally supposed that an operation of the kind would prove fatal. The animal was under the influence of sulphuric ether, and the operation proves entirely successful, ten days having elapsed since it was performed. The object to be attained in this particular case, was to render the mare more docile, as she had heretofore been nearly unmanageable during her periods of heat. Physiologists are of opinion that removing the ovaries, if successfully performed, will render the animal mild and gentle.

Save the Leaves.

If Bro. Jonathan were as saving of manures, as John Bull is, he would be a better farmer. No one knows until he has seen it, how careful English and European farmers and gardeners are of everything which can be converted into manure. And this is one ground of their superiority in agriculture.

Now, let us repeat, what we have often said, that few things are more valuable for fertilizing purposes than decayed leaves. They are hardly inferior to barn-yard manure. Gather them up, now, this very month of November, before they are covered by the snow. They are abundant everywhere, lying in heaps and windrows in the forest and by the roadside, and by the fences in every yard. The wood-lot should not be stripped clean of them; but doubtless every farmer's land contains more of them here and there, than he can find time to cart home. Gather them up, by raking, or by sweeping with a large birch broom. Stack them and pack them in the large wagon, adding side-boards as high as convenient: you will hardly get too heavy a load. Cart them home, and use them as bedding for cattle and horses; use them for compost in the stable-yard; use them to protect tender grape vines and shrubs and plants in Winter. Strawberry patches will fairly sing for joy under such a feathery blanket. By all means, save the leaves, and use them.

A Leak in the Stable.

Not a leak in the roof, though that would be bad, but in the floor, which is worse, and many leaks too, leaks between every plank! Why should this be allowed? Why not make the floor tight as possible, and have one gutter near the heels of the stock, to carry off the urine into a tank below, or into a heap of muck or other absorbent? Or, in place of this arrangement, have the floors well covered with litter, of straw, peat, tan-bark, saw-dust, plaster, or any dry absorbent material. Any body can see that this would save nearly all the urine for useful purposes, and would make the air of the stables pleasant and healthful to the stock and their owners.

The importance of this economy will appear when we reflect that the liquid voidings of a cow range from nine hundred to twelve hundred gallons a year, according to the age and size of the animal; and of a horse, from eleven to fourteen hundred gallons, which are worth more, pound for pound, than the solid excrements.

As we have often said, the Chinese, and Germans, and other European farmers, save this portion of their manure with far greater care than we do. They would as soon let silver coins slip through holes in their pockets, as this manure leak through holes in their stable floors. Doubtless, American farmers waste millions of dollars annually in this way. Friendly reader, how much do *you* waste?

Treatment of Muck in the Stable and Afterwards.

Of all methods of using muck, which we have tried, we are best pleased with it as an article of bedding for cattle. This, we think the best and most rapid way of manufacturing it into manure. In addition to the liquid manure and a portion of the solid which it receives, it has the heat of the animal while lying down, and this, with well fed cattle is a large part of the time. It has all the qualities of a good bed, dryness, softness, cleanliness, until it becomes saturated with urine, when it is time to throw it out, and put in a new charge. An allowance of a half cord to the animal, will become saturated in about two weeks, if the stall be occupied all the while.

A correspondent asks if the muck should be taken from the stable to the compost heap, or to the field, for plowing in? Either is a safe practice. We are governed entirely by circumstances, in the disposition of the muck after it leaves the stable. In the Spring, during the planting season, we fork it over, make it as fine as possible, and plow it in. Nothing is lost by this method. If not wanted for immediate use, we remove it with the solid droppings of the cattle to the compost heap, where we mix it with two or three times its bulk of muck or peat. It undergoes fermentation, and becomes a more valuable manure, we have no doubt, than that taken directly from the stables. The ammonia is more equally distributed through the mass, there is more of it, and it is in a much finer condition. But the labor of handling is considerable. Which ever course is pursued, we always think money is made about as fast as a farmer can expect, when he is handling muck. We are confident the man who follows it up ten years, will come to the same conclusion.

Choice of Cattle for Feeding.

THE HEAD AN INDEX OF THE QUALITY OF AN ANIMAL.

Fattening an ox, and building a barn, are two very different operations—depending on principles entirely dissimilar. Some by their practice appear to think that they are quite alike. There is the ready framed timber—the carcass of the animal—to be increased in size. Hay, grain and roots are the materials to be added. All that is needed is to introduce food, let it be worked over in the animal's mouth and stomach, and the building will be completed—just as one would deliver to the carpenter so many timbers, boards, and shingles, and in due time find his barn finished. But it quite often happens that though grass and grain, hay and meal, are given without stint, the expected plumpness fails to appear; and instead of rich juicy cuts of beef, packed under a sleek mellow hide, there results, a coarse, ill-favored, leggy non-descript, with bones like a mastodon, and gristle and hide like a rhinoceros.

Now the carpenter has just one thing to accomplish, and his tools are fitted for it, and therefore we employ him with a reasonable certainty that his work will be done; but an ox carries on more than one trade. He not only makes beef, but bones and gristle, and hide; besides which, he uses up not a little food on his own private account for keeping warm, and also keeping up his spirits, that he may indulge his wild vagaries of frisking and restless roaming, and exercising his horns on the neighboring fences and his owner's patience at the same time. Some animals excel in one of these departments, some in another.

One contentedly chews his cud, while another is seeking mischief; one turns his food to fat, another can produce little but bone and muscle. It would be nonsense to give materials for the barn to the wheelwright or the cabinet maker, and it is no better judgment to select animals for fattening without reference to their aptitude for that purpose. All beef is made from cattle, but all cattle will not make beef, and it is a waste of money to feed grain to *bone-mills*.

These ideas were suggested by the following valuable hints on choice of animals for fattening, contributed by Mr. Hedley, to the Newcastle Club, and published in the Agricultural Gazette, England. He says: "In my close identification with fat cattle for several years, I have always found that the best animals have the most massive heads, most capacious chests, and strongest spines. I have, therefore, evolved a few rules to go by in the purchase of lean ones, and scarcely with one exception I have found them to be applicable. The *head* of any of our bovine races ought to have the first consideration; this is the true index to the vital acumen, and even bodily construction, and will be found to foreshadow all of good or bad that may be accomplished. Thus an animal possessed of a broad, full, spacious skull, with strong evenly-bent deflective horns, will be found to have a thick neck at the base, wide thorax, and strong nervous system; while one with long, narrow, contracted skull, and puny, abruptly bent horns, will be characterised by weakness, wildness, and slowness to fatten. A small, dull, sunken eye betokens hardness of touch and inaptitude to fatten; and a bright, large, open soft eye, *vice versa*. A starting, dark, fiery eye often accompanies a small forehead and hereditary wildness, and when combined with small drooping horns, and a chin with no loose skin hanging from it, is a very despicable animal indeed, weak in constitution, predisposed to lung disease, and sterile in fattening propensities. Animals with weakly-formed heads, have always small loins, and the width of these parts will always be found in an exact ratio with the strength of the head. The nose, instead of being long and fine, as Virgil, Aristotle, and several other naturalists recommend it, ought in my opinion to be thick, strong, and near the ear as possible, if only in proportion to the size of the frame. Thickness of nose and thickness of chest are often twins, and so are thin, meagre, irregular noses and consumption. Small, snipy noses oft sniff the air into frames of small capacities, and are joined to mouths that can crop but very small morsels at a time. These observations I have found to be applicable to any of the kinds of cattle shown at Newcastle market. But besides the shapes of animals, the age and class must always have especial consideration, and be adapted according to food and situation; otherwise, the realization of remunerative profits will be uncertain."

Economy of Food in Stall Feeding.

How to fatten cheapest? that is the question. Fitting an animal for the butcher, is an art that can only be learned by study and practice. Fifteen, twenty, twenty five per cent in the value of food may be saved by the man who knows *how*. The question of economical fattening includes several others: the quantity of food to be given at a time; variety of food; regularity of feeding; cooking food; warmth and quiet of the stalls, and other items. Multitudes who have animals to fatten, have never conducted any experiments to satisfy themselves upon these points, and have no access to reliable information. So each man feeds what is most convenient, and in the manner most convenient, and never can tell whether he has gained or lost by the animal he sells to the butcher. To answer several inquiries we offer some hints upon these topics.

The preparation of food is a matter of very great importance. Stalks, hay, roots, grain, etc., do not impart all their nutritive qualities unless they are artificially prepared. Much is fouled so that the animal will not eat it, and much more is imperfectly masticated so that it is not digested and assimilated. It should be so prepared that the animal can have all the nourishment with the least expenditure of muscular energy. The less trouble fattening animals have, the better for their thrift. The ox, in a poor pasture, will not thrive as in a stall upon green, cut grass, though he consume, in each case, the same quantity of food. The sheep will not thrive upon whole roots and grain, as when they are cut and ground. The pig does better upon meal, than upon corn, and better still if the meal be softened and swelled by cooking. All food should be given to fattening animals in such a state that they may fill their stomachs and give themselves up to rest, and rumination, if they belong to the ruminants. If a farmer is to fatten animals, it will pay him abundantly to invest in cutting machines for hay, stalks, and roots, and in a boiler, and steam box.

Stalks and rough corn fodder are generally more than half wasted, as usually fed. Run them through a cutter,and steam them an hour or two, with a little meal, and they will be eaten up clean. Straw, roots, and meal are much better after steaming, and more highly relished.

Full feeding is another item of great importance in fattening. The object is not to get labor or milk, but the greatest amount of flesh and fat possible for the quantity of food consumed. The animal, therefore, should have all the food he will eat up clean, and be stimulated to eat at frequent intervals, from three to five times a day, according to circumstances. The bullock that is stuffed one day and starved the next, may have the desired streak of fat and lean, but he will be a very expensive animal.

A variety of food is essential to keep up the appetite under full feeding. Even the pig will tire of but one thing. In fattening, we want both bulk and aliment in the fodder. If there be stalks, straw, and hay, there should also be meal. If we have roots, we should also have both hay and meal. Perhaps there is nothing better than roots to keep up the appetite. They assist digestion, and keep the bowels open. The beef and mutton of England are very largely made of turnips, beets, and mangel wurzels. A change in some one of the items of food should be made as often as once a week. If we have steamed stalks and meal with sliced turnips one week, change the turnips to carrots or beets the next. The meal and roots being the same, the stalks may be changed for hay, or the hay and roots being the same, Indian meal may be changed for linseed oil meal, or for any kind of grain meal convenient to feed.

Regular hours of feeding is another element of success in fattening stock. This may seem a small matter, but really more depends upon it than on almost any thing else. The most economical pork maker we ever knew, was a blacksmith who always fed his pigs at meal time, and his meals were regulated by the clock. Every body admired his knack at making fat pigs, but every body did not know his secret—feeding by the clock. It is surprising to see how readily an animal forms regular habits. The bullock, the pig, the sheep, looks for the stated allowance as regularly as the clock strikes, and if his wants are systematically met, an improvement in condition is soon manifest. If fed irregularly, they may consume the same amount of food, but they become restless and uneasy. The animal of regular habits, rests or ruminates immediately after eating, and the food is perfectly digested, and turned to flesh and fat.

Quiet should be secured so far as possible, especially during feeding hours. For this reason, stall feeding, where each animal is confined to a small enclosure, is much better than pasturage, or large open yards, where cattle worry each other, and may be intruded upon at any time, by dogs or noisy men and boys. All animals fatten better in the dark than in the open light, a fact difficult to account for, except that they are more quiet in a dark, secluded place.

With these preliminary hints as to the manner of giving food, we come now to the food itself. What shall be given so that the butcher may not be cheated, and we get our pay for the fodder consumed? A farmer must not expect to get the market price for what he feeds to the fatling. If he gets seventy five per cent, he will make money by the *manure*, if he know how to save it. This is the great advantage of stall feeding cattle for the butcher, and if a man has not a use for the manure upon his own land, we doubt if the business can be made to pay. It is considered more than an average thrift, if an ox gains two pounds a day, worth not to exceed sixteen cents. The feed must be less in value than this per day, or the farmer will lose his time and make nothing by the operation. An ox will eat from twenty to thirty pounds of hay, worth half as many cents, or its equivalent in other kinds of provender. An ox would readily eat eight quarts of meal a day, and this alone, in the old States, would be worth the two pounds of beef. It is quite manifest, then, that the manure making is the only thing that will make stall feeding pay in the North and East.

Our climate and soil are so genial, that we have a large list of feeding stuffs which can be grown upon every farm. At the head of these we place Indian corn for fattening purposes. Then we have oats, buckwheat, and rye, the several grasses, apples among the fruits, cabbage, turnips, parsneps, carrots, beets and potatoes. Then if we purchase, we have linseed and cotton seed oil cake, ground into meal—both excellent articles. The following table shows the amount of nutritive matters contained in 1000 parts of several vegetable substances examined in the green state. Wheat 955, Barley 920, Oats 743, Rye 792, Beans 570, Potatoes 260 to 200, Linseed cake 151, Red beet 148, White beet 136, Parsneps 99, Carrots 99, Cabbage 73, Swedish turnip 64, common turnip 42.

This list places potatoes at the head of the roots for feeding purposes, but it is only where potatoes have no ready market as human food, that a farmer can afford to feed them to stock. They will hardly pay for this purpose, at a higher price than twenty cents a bushel. The other roots can be raised at a cost of from six to twelve cents a bushel, and at this price it will do to feed them. It is quite manifest from these hints that stall feeding is a *science* as well as an *art*. No recipe can be given for fattening an ox or cow. The feeder must rely upon his own judgment and then, quite likely, it will be years before he will make money by stall feeding.

An English Feeding Stable.

The Country Gentleman thus describes the feeding stable of Mr. Horsfall, a celebrated dairy farmer in Yorkshire, England: The inside length is 42 feet; outside width 14 ft. 10 in.; back wall of brick, 7½ ft. high; the end walls also of brick, with doors. The front of the building, towards which the roof slopes, is about 6 ft. high, and is composed of six pairs of doors, so that the whole side can be thrown open, if necessary. The roof is of slate, and thatched underneath—a very simple English method of maintaining a more even temperature, and worthy of adoption here. The spaces between the roof timbers are filled with straw, held in place by light strips of wood.

Comforts for Cows.

Now that the cold season is setting in, let the cows, especially the milk-givers, have all needful attention. They should be well housed and well fed. The stables should be just moderately warm, well ventilated, clean, and provided with suitable bedding. Aside from the mere matter of food and drink, the animals should be kept comfortable. This matter can hardly be over-estimated.

Then, as to fodder: part of this, of course, should be straw and hay and corn-stalks; but to expect cows to give much milk on such lean fare, is folly. Favor them with messes of chopped roots, of cut straw, or stalks mixed with meal of some kind. A favorite 'mess' for cattle, with a friend of ours is this: Cut up hay, or straw, or stalks, in pieces not more than an inch, or inch and a half long, put the provender in a tub or tight box, and pour boiling water upon it; then sprinkle on a little salt, and cover the whole with a little bran or meal to keep the steam in. When cold, feed it in messes of a bushel at a time. Good as this is, it should be varied from time to time, for cows like variety, as well as men. Cows should be salted two or three times a week. In mild weather they should range by day in a commodious yard, protected on two sides, at least, by covered sheds. And this yard should have a pen-stock of running water, or a trough kept full from a good pump: the first is the best.

SORGHUM SUGAR WANTED.—Some idea may be formed of the saving that can be effected, when sorghum sugar becomes a staple, by the following item communicated by Hon. Amos M. Roberts, of Bangor, Me. He states that he has from a West India merchant in Boston, one order amounting to twenty five thousand dollars, for lumber to be sawed for sugar boxes, which are to be shipped to Havana, and then brought back filled with sugar.

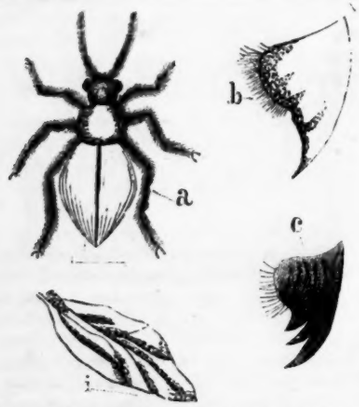


Fig. 1—*a*, Grape Vine Flea Beetle, (*Altica Chalybea*)—*b*, Mandible covered with skin—*c*, Mandible with the skin removed—*i*, Under wing.

Microscopic Views of the Insect World. VII.

BY MRS. CHARLOTTE TAYLOR.

THE GRAPE VINE FLEA BEETLE.—*Altica Chalybea.*

I here introduce one of the most beautiful of Insects. I presume most grape growers have noticed it glittering like a jewel among the leaves of the grape vine, and have likewise been much annoyed by its depredations. This insect properly belongs to the large wild grape vines of this country, familiarly called "Bullaces," but domesticates itself easily upon every native or foreign vine. It has been believed that the famous Scuppernong was exempt from its attack, owing, I presume, to the extreme acidity of the juice of its buds and leaves; and grafting other varieties on this grape has been recommended. This is evidently a wrong conclusion; this vine

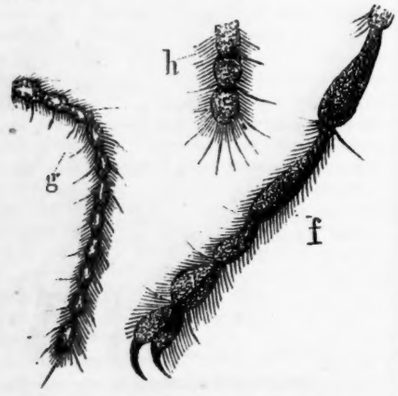


Fig. 2—*f*, Leg—*g*, Antennæ—*h*, Labial feeler.

at some seasons may be found entirely bare of leaves and buds, and containing this beetle in abundance—not that I mean to say it alone may be considered the depredator, unfortunately it has ample assistance from many other insects. I presume it has been very troublesome in every part of the country for the last two years, from the number of letters calling my attention to it. A drawing of the perfect insect is given at *a*, Fig. 1. It belongs to the sixth family of Latreille's Coleoptera Tetramera; the division Galeruea, and subgenus Altica. It is called the Haltica Chalybea by Illiger (steel blue flea beetle). When it first emerges from the pupa case, it is of a brilliant violet color, but varies as it advances in age, until, if time permits, it becomes of a dark bluish green; but in its palmiest days, it is of the bright metallic steel blue hue which gives it its name Chalybea. If the season is favorable, the first brood generally makes its appearance about the middle of April—the second near the end of July if dry and pleasant—they dislike rain exceedingly.

There is a peculiarity about these beetles which I have not seen noticed by other entomologists, which puzzled me exceedingly at first. I could not allow myself to believe they could commit the depredations they are accused of, but after years of trial and examination, I see that it is with them as with all others—a kind Providence watches over their welfare, that their mission may be successfully fulfilled. When they first come forth an Imago, or perfect insect, there is a skin over the mandibles making them look entire, *b*, Fig. 1. While this skin covers them they require no food, the salivary glands being shielded by this cover, they have no desire to eat; so if the buds of the grape are not forward enough, they can wait patiently until Nature provides them with their supply. When the buds are ready, they commence eating, and soon press through the three teeth in each mandible, which leave no doubt of their ability for mischief, *c*, Fig. 1. You may be convinced of this by breeding them under a glass and submitting the mouth of the Imago to the magnifier immediately on its emerging. The covering is very thin; if there are several under the glass, they will bite at each other, which will force the teeth through; and if not fed immediately, they will die of starvation. You must have some patience about it; a hundred specimens may be examined and yet not one be found in this exact state, as many circumstances intervene to force them into the act of biting. They are great eaters, and consume double their weight every twelve hours. Their principal food is the bud of the grape vine, and they can be seen all the season, burrowing, almost disappearing into the interior, *d*, Fig. 3. Of course the growth of the vine is injured, if not entirely stopped. When more fully advanced, they commence devouring the leaves. The injury done is greater when arrived at the Imago state, than when in the larvæ, *e*, Fig. 4; however, they are destructive enough at all ages. The tarsi (feet) are three jointed; the legs, *f*, Fig. 2 are incrassated, fit for leaping, which is their principal movement, although they fly well for a distance; and they have been known to emigrate in numbers across streams and rivers. When touched, if they do not leap, they fall to the ground and simulate death. The antennæ, *g*, Fig. 2, are filiform. The labial feelers, *h*, Fig. 2, are three jointed, the maxillæ, obtuse, the galea palpiform and distinct; these latter parts can not be shown unless the whole mouth be drawn, which is unnecessary, but must be noticed as distinctions of the subgenus. The underwing, *i*, Fig. 1, is of a delicate amber color shaded with a deeper hue. The female deposits her eggs, *j*, Fig. 3, which are small and bright yellow with an indentation at the side, on the stalk, where the bud will protrude, *k*, Fig. 3. The worm comes forth and burrows down into the cup of the bud, or hides away under the down around it, until it is more advanced. They are very small, scarcely perceptible, a delicate pale green, of the same hue as the young leaves. After eating about fifteen days, it changes its skin, becoming darker. Three times, this ecdysis is performed, when it now becomes, if healthy, of a dark chestnut brown, sometimes more of an Indian red; but much depends in color upon the grape it is feeding upon. When the change of skin is about to take place, the worm draws over it a corner of the leaf, *l*, Fig. 4, to shield it from the sun or dew. It does not come forth to the air for a day or so, until the new skin is hardened. They generally feed six weeks and then go into pupæ.

The pupa state is necromorphous — that

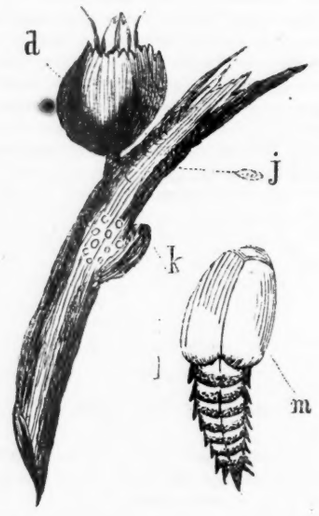


Fig. 3. *d*, Beetle in the grape bud—*j*, The egg—*k*, Place of depositing the egg—*m*, Pupa case.

is, the mouth and legs are detached from the body, but so enveloped they can not be used, therefore the resemblance to the perfect insect is considerable. The first brood appear to be indifferent about the place in which they will undergo their transformation. You may find them in the pupa case, glued to the stem of a leaf, *n*, Fig. 4, or tied up in a tendril, or on the main trunk, hid away under the bark which is always flying off from the stalk of the grape vine. But the second brood is very careful to descend to the earth, and there, around the root of the vine, you will find them congregated in regular formed pupæ cases of the size of a caraway seed.

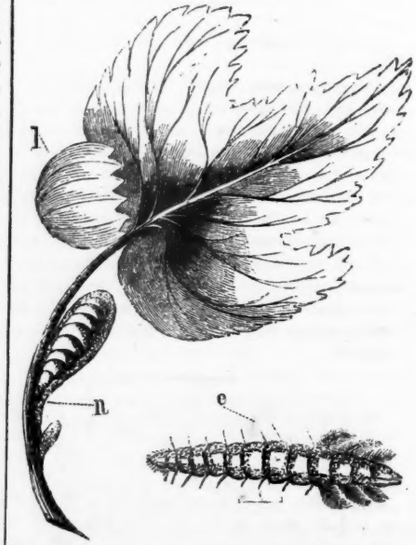


Fig. 4—*e*, Larva—*l*, Place of concealment when changing the skin—*n*, Pupa case, glued to a stem (magnified); the natural size is given below.

It must strike any intelligent mind that the remedy here is to remove the earth from around the vine, replacing it with earth well *sifted*. You would be amazed to find how many injurious

insects you would destroy by adopting this plan. Using bullocks' blood diluted with water, frequently keeps a grape vine free from many insects, not from much benefit arising from the blood, but that the smell of it attracts the larvæ of carnivorous beetles, which devour the pupæ of the herbivorous. Is there nothing that can be said or written, that will induce people to undertake the destruction of injurious insects in the Autumn? This is *the time* to remove such evils around fruit trees and in gardens, not waiting until the Spring with its genial warmth brings them forth from their hiding places—when the washing, dusting, hanging of bottles, thrashing of branches, mixing of oil and soap suds—grumbling, lamenting, and inventing patent powders and recipes, commence. How much wiser to use the spade in the Autumn.

Mother Earth in her bosom shields
Her children of the woods and fields.
Here you will seek them if you're wise
'Ere sweet Spring gives them wings to rise.

Habits of the Apple Borer.

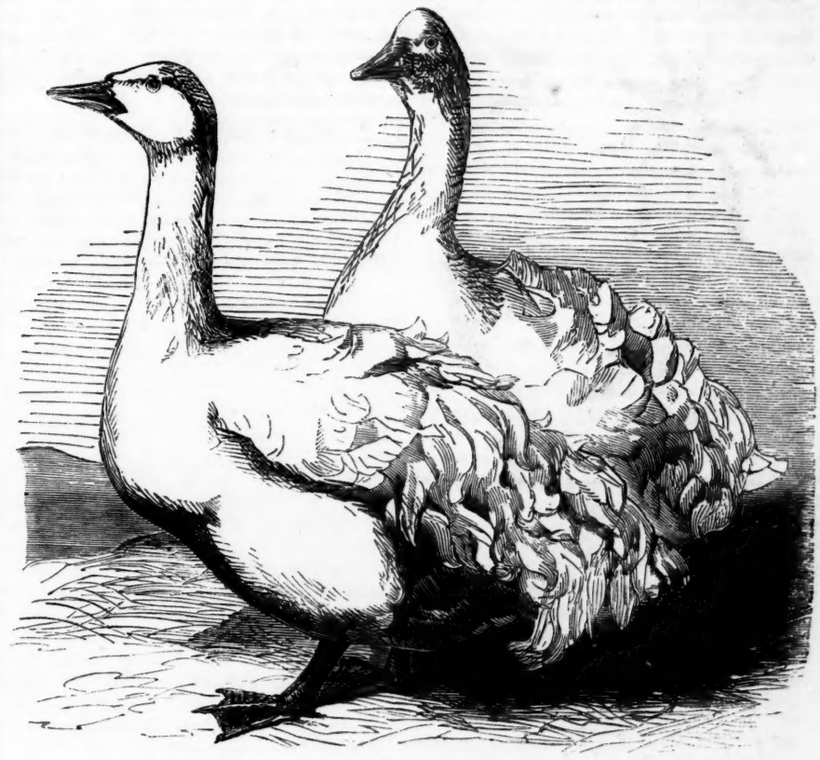
A correspondent of the Maine Farmer, who has paid much attention to this destructive insect, states as the results of his observations: that the absence of the sawdust or borings about the trunk of the tree is no proof of the absence of the borer; that the borer works downward, sideways, or round about, the second year, working very close to the bark and girdling the tree so far as he goes, and it is not until after the second year that he makes a straight course upward and inward, to come out, probably on the other side; that there are often several borers in the same burrow, at least during the first and second years; and that it is better to kill the tree in searching for them with the knife and the chisel, than not to find them.

It may be that our readers will feel *bored* by seeing so much about this insect in the *Agriculturist;* but it is proving so destructive, that too much can hardly be said until cultivators are induced to stop its ravages.

Teaching Pigs to Eat slow.

A correspondent of the New-England Farmer says: Pigs should be early taught to eat slowly, for the advantage of the pig, as well as of the owner. Nothing is easier. Give the weaned pig, at 6 or 8 weeks old—in a clean trough—half a tea cup of dry shorts or bran, and after his dry food is all eaten, give his drink, and increase the dry food according to the age and appetite, till three months old; then add one half Indian meal for two months, and then dry Indian meal, till fattened sufficiently. This plan has been followed for five years with decided success.

A Crow Frightener.—A foreign journal notices an ingenious contrivance for keeping crows from the cornfield, in operation on a neighboring farm. It is a self acting gun, which being loaded in the morning continues to shoot at certain intervals during the day. It is so made that it can be set to discharge itself once in ten or fifteen minutes, or half an hour, or longer, as may be desired. Can not some of our Yankee readers get up a cheap contrivance of this kind during the Winter? If they can arrange it so as to *kill* the crows, we will warrant an extensive sale.



SEBASTOPOL GEESE.

A New Breed of Geese.

The above engraving gives a very good idea of a curiosity in the poultry line, recently exhibited at the Crystal Palace in London, viz: a pair of geese obtained in Sebastopol, Russia. They are described as being somewhat smaller than the common variety, weighing eleven pounds each, but of the purest white, and most perfect form. The most noticeable feature of these birds, is their curly plumage, which gives them a very singular look, making them appear almost as if of a distinct species of the goose family. The feathers on the back are curved and frilled upward; the secondary or smaller feathers of the wings are elongated and twisted; the tail coverts have also the same peculiarity. Their habits are precisely similar to those of the common goose. But one pair have been taken to England, and we have not learned what is their value for the table. Perhaps the curly nature of the feathers makes them more elastic and better for beds. At present they are regarded only as "fancy fowls," for gratifying the curiosity of those interested in poultry breeding.

For the American Agriculturist.

What Agricultural Literature has Done.

A TRUE HISTORY.—AND NOT A FANCY SKETCH MERELY "FOUNDED ON FACT."

Twenty five years ago, I was a boy of twelve, living near one of the richest valley farms in the interior of a New-England State. The farm comprised about three hundred acres, of which seventy five were strong alluvial soil, in meadow, flooded by the high waters of every Spring—one hundred more in upland pasture and arable land, and the balance in woodland. The occupant's family consisted of a son and two sisters, the elder of whom was the housekeeper. The "help" was a hired girl and a man, with an additional hand, and sometimes two in haying. Here he spent his life in a fruitless attempt to support his family and educate his children. He was an industrious, a hard working, frugal man, who taught his children habits of the strictest economy: but he was an *anti-book* farmer, and a patron of the credit system. The merchant, the blacksmith, the wheelwright, every one with whom he had dealings, had accounts, the balances of which were all on the wrong side, and somehow, could never be reduced. Too often, they were closed out by legal process, and I well recollect that the sheriff was the most frequent, though unwelcome visitor. The plows had the old wooden moldboards, faced with strap iron; the harrow teeth were made of white oak; a horse rake we had never seen. The fences were rickety, the buildings dilapidated. There was an orchard, but the knowledge of fruit culture did not teach that it ever required *trimming*, and its productions were about as large and hard as nutmegs. As the meadows lay convenient to the barns, they were fed down closely in Autumn—the feed was better there than in the pastures! The cattle were never stabled in Winter, nor were racks provided in which to feed them, and the quantity of forage they wasted equaled that which they consumed. The stock died in Winter of exposure, in Spring of weakness. The crows always called in their early Spring migrations, and were always sure of an abundance of animal food. The manure was rarely disturbed in the cattle yards, because the meadows were thought to be rich enough without it, and it would not *pay* to draw it up hill to the pasture lands. It went on accumulating until the yards were higher than the surrounding fields. The wash of the yards was conveniently disposed of in a neighboring brook, toward which the yards sloped and by which

they were effectively drained. It was the boast of our neighbor that *his* cattle yards were always *dry*.

Under such circumstances "going to college" was out of the question for the son. It was only through much tribulation, that he could attend for two terms at the village academy. His sisters must be content with the facilities for "reading, writing, and ciphering" afforded by the district school.

On this farm, in those days, an agricultural paper, book, or periodical was never seen. The father entertained a sovereign contempt for the book farming which one or two of his neighbors were beginning stealthily to practice. With him, a change of crops consisted in breaking up the meadow, planting it to corn or potatoes, without manure, the first year, and sowing it with oats and a sprinkling of grass seed the next. This sometimes "caught," as it was termed, but oftener not, but it was the "mowing" next year in either event. The idea of applying chemical knowledge to the adaptation of different manures, would have been regarded as a humbug, and the man who should have predicted modern plows, harrows, cultivators, threshing machines, *reapers and mowers*, would have been treated in that neighborhood with the pity and consideration due to an insane person.

The consequences were inevitable; with each year the ends were further from meeting than the year before. Then the pine, oak, and other valuable timber, and finally the cord wood, were cut off to satisfy an old creditor, while making a new one. As the son grew older, he became dissatisfied, broke away from the old homestead, and after encountering the difficulties common to such efforts, obtained an education without paternal aid, studied a profession, and settled in the practice of it in the county town of his native county.

Pass over a score of years, with their changes. The father has gone to his rest. In the family arrangement the homestead passed into the possession of the husband of my elder sister, who has now occupied it some 8 or 10 years, and has had *no* income except that derived from the products of the farm itself.

There is a change there now. In the place of the old, ruinous dwelling, is a large commodious frame house, with its neat vine clad porticos, its shades and blinds, and all the "modern improvements." The parlor has its piano, and with the other rooms, is finished in a style of substantial elegance. Young shade trees are springing up around the lawn in front of it—a neat flower garden is laid out at one side with a vegetable garden in the rear—young trees are putting forth vigorous shoots, giving promise of abundant fruit of various descriptions.

All the old out buildings are torn down, new ones are erected in rear of the house upon a gentle slope which overlooks the meadow. Here are warm stables in which water scarcely freezes during the Winter, for every head of live stock upon the farm. The floors are so constructed as to save all the drippings, and the manure is housed as carefully as the stock. Not a pound of hay or an ounce of grain is fed outside of the stables. The straw, stalks, and coarse fodder are all cut and mixed with grain, which is always ground before it is fed out; in this manner not a straw is wasted. Running water is carried into and out of every yard.

Are you curious to look at the stock? Here is a flock of long, coarse wooled, heavy sheep. "Leicesters," I think he calls them, to begin with. "Is not this wool very coarse?" you ask, as one of the long bodied, heavy quartered, Landseer like, looking animals nibbles at the owner's hand. "Rather," he replies, but at 30 cents per pound it brings as much money as that of so many Spanish Merinos—and he goes on to tell you how it costs no more to keep them, than the little Merinos; that the ewe almost invariably produces two lambs each year, that they are very hardy, come early to maturity, and that the Boston lovers of good mutton are quite willing to give ten dollars for the carcase of a fat two year old, when common mutton could hardly be given away. Then, here are his cattle—all selected with a careful eye to their destined uses. Here are pure bloods. Herefords, Devons, Alderneys, and Durhams. Some for beef, some for their milking qualities, some for draft oxen. After repeated experiments, he tells you that he has concluded to keep no pigs but those of the Suffolk breed, as they make pork the cheapest. We look at a pen of them—there is scarcely a greater difference between a greyhound and a porpoise, than between these and the long legged, gaunt species, that used to range at will over the potato and corn fields, twenty years ago. He does not approve of the mania now prevailing for horses; he thinks that in the Black Hawk now so popular, size and strength are sacrificed to beauty and action: and just to see whether this error can not be corrected, here in a box stall, is a colt by old Black Hawk out of a Hamiltonian mare. He thinks that he has improved by this cross on both the parent stocks, and you agree with him, as you look over the beautiful animal which he shows you. Indeed you are almost ready to say that there is no room for improvement in his stock. He thinks differently—and you will, if you look over his farm ten years hence.

Come now into his fields. Here he will utterly confound you. He is thoroughly versed in the mysteries of agricultural chemistry—start him once upon alkalies and acids—phosphates and super-phosphates, silica and alumina, and he becomes so abstruse and scientific, that you are at once reminded of the frightful formulas of Prof. Horsford about chrome alum and its salts, which you and I tried so unavailingly to understand at the scientific convention at Newport. And yet there is a singular method in all he says. This field produced nothing! It wanted lime. Lime was furnished, and the corn crop he thinks is sixty bushels to the acre. That one was short of ammonia—ammonia was supplied, and the change is even greater. But I will not particularize further. Here are the hills, the brooks, the old trees, each of which is endeared to me by some association of childhood, but all else is changed. The wilderness has been made to blossom like the rose.

What are the nett results? Upon the farm on which the father grew poor, the son-in-law lives like a country gentleman. His young lady daughters are at the Seminary. Instead of a borrower he is a lender—each year adds to his stock list, and his note roll. Out of debt, with a farm and stock worth ten thousand dollars, living comfortably and elegantly, discharging his duties toward society and his family, he occupies a position of happy independence which a professional man can never hope to attain.

What is the secret of this change? Go into his library and you will see the explanation! He is at the same time a *practical* and a *scientific* farmer. Books and papers, those garners of the experiences of other men, are, in part, the *tools* with which he works. These, teach him what improvements are really valuable and he adopts them. The best investments he makes are in agricultural literature. He will tell you how an article which taught him to set his fence posts with the tops downward, and gave the reason why he should do so, has doubled the length of time that his post and board fences are serviceable, with various other illustrations not less curious. Books upon chemistry, meteorology, manures, upon horses, cattle and sheep, fruit and horticulture and all kindred subjects, with all the approved periodicals, (to many of which he contributes) you will find there—all giving evidence of the thorough reading to which they have been subjected. On the whole, I pronounce his establishment the best cure I have ever seen for the malady which affects too many of our farmers still, called "*prejudice against book farming.*" BION.

Making the Best Cider.

To make good cider, the apples for each pressing should be as nearly as possible of one kind, free from rot, leaves, and all foreign substances, that the fermentation may be complete and uniform. Apples should be selected, the juice of which has the greatest specific gravity, as such juice contains the most sugar, and makes the richest cider. They should be ground and pressed with scrupulous cleanliness, and every step of the process, from the gathering of the fruit to the final barreling and bottling the liquor, should be conducted in the same careful and unexceptional manner.

Apples differ not only in their flavor, color, and time of ripening, but in the proportions of their constituent parts. The characteristics of a good cider apple are: a red skin, yellow, and often tough and fibrous pulp, astringency, dryness and ripeness at the cider making season. When the rind or pulp is green, the cider will be thin, weak and colorless; and when these are deeply tinged with yellow, it will almost always possess color, with neither strength nor richness. The apple, like the grape, must attain perfect maturity before its juices develop all its excellence; and, as many of our best eating apples do not acquire this maturity until Winter or Spring, such fruit seldom yields good cider. In a dry apple, the essential elements in cider are generally more concentrated, or are accompanied with a less proportion of water, than in a juicy one; of course, the liquor of the former is stronger than that of the latter. Of our best cider apples, from ten to twelve bushels of fruit are required for a barrel of cider, while of the ordinary juicy kinds, eight bushels generally suffice.

The apples should ripen upon the tree, be gathered when dry, spread in an airy covered situation for a time, to induce any evaporation of aqueous matter, which will increase the strength and flavor of the liquor; and finally they should be separated from rotten fruit and every kind of filth before they are ground.

The apples should be reduced by a mill to a uniform mass; to give it color, the pomace may be exposed to the air from twelve to twenty four hours till it becomes red; then press out the juice slowly; put it in casks; bung it up and immediately place it in the cellar, leaving out the bung. Fill up the cask to the bung, in order to let the impurities flow over. Before the fermentation ceases, insert a flexible tube through the bung, block tin will answer, and bend the other end, like a syphon, into a cup of cider, or water placed on the cask near the bung, to allow

the carbonic acid gas to escape, and to prevent the air from entering. So soon as the gas ceases bubbling through the water in the cup, the fermentation is complete; then draw off into clean casks, bung tight, and place in a cool cellar, where it will continue sweet for any length of time.

The advantage of this process is that the juice is preserved perfectly sweet, and you are more sure to draw it off at the right moment after fermentation ceased. When fermenting, the lighter particles of pomace are rising, the more heavy settling; and the least touch or jar of the cask will disturb the operation. In straining the liquor, too much care can not be taken to exclude the pulp, as its presence is apt to render the fermentation too violent, and drive it into the acetous or vinegar stage. A hair sieve, partly filled with hay or straw, answers the purpose.

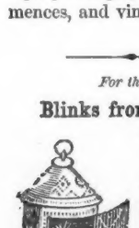
Another process—and we think a good one—is to put the liquor, as it comes from the press, into a tub or open vessel, and let it remain till the most active part of the fermentation is over, which will take place in from four to eight days, according to the weather and the heat of the place in which the operation is conducted. A cool dark cellar is the best; cool, that the action may not be accelerated, and dark, to avoid flies and other insects. As soon as fermentation commences, part of the pomace and lighter portions rise to the surface with the disengaged gas, in the form of froth, and the residue or heavier impurities fall to the bottom in the form of sediment. This is a critical moment. When the froth begins to crack, it should be carefully skimmed, and the liquor drawn off into clean, sweet casks. If left longer, the feculent matter or froth parts with the gas, sinks, and renders the liquor turbid, and as soon as the temperature attains a proper hight, the acetous fermentation commences, and vinegar is the result.

C. N. BEMENT.

For the American Agriculturist.

Blinks from a Lantern.....XXII

BY DIOGENES REDIVIVUS.



ABOUT OUR HOUSES, ETC.

Times have greatly altered since I dwelt in the flesh. It suited my convenience and humor to live in a tub then, to rebuke the extravagance and folly of my times, and to show how little would meet the animal necessities of man. I threw away my drinking cup, taking water in the natural way, to show that the animals were not more independent than man, and that one philosopher, at least, was as capable of self help as common men. I have learned a good many things not dreamed of in my philosophy then. I have found out that man has a soul with an esthetic nature, and that the cravings of a man's stomach are by no means his most imperious wants. He needs things beautiful and comely, for the growth of his soul, just as much as he needs food and drink for his body.

I have sometimes thought, in my journeyings around among the farmers of modern times, that there was a great deal of the old tub philosophy still prevalent. I cannot see wherein a *box* is any better type of architecture than a *tub;* and a box is the model of the great majority of farmers' houses. To my eye, the six parallelogram sides of the box are not so pleasing as the circle of a tub. One would naturally think that all the carpenters in the country had studied nothing but Euclid, and that they could entertain no other proportions. There is a great want of taste in these houses. The architect who contrived them, had no other conception of man, than as an animal with certain physical wants. He must have a cage to feed and roost in, and it might as well be an exact cube as anything else. The cube is only broken in its outline by the roof, because it rains sometimes, and the smoke must go out of the chimney. But for this infelicity of the climate, we should have nothing but the box, pure and simple.

Now, in the necessities of the back-woods, where a man is struggling for the bare necessaries of life, I have nothing to say against the log cabin, and the cheapest and plainest build of dwellings. They are temporary expedients, looking forward to something better. But the box is by no means confined to the frontiers. We have townships settled more than a century ago, where the most of the people live in two story cages. The prevailing model is an unpainted box, the eaves projecting six inches beyond the sides of the house, without a superfluous board, or shingle, or brick, in the whole building. There is nothing pleasing to the eye, nothing but the windows and chimney to distinguish it from a barn.

Beside, the house is but half finished; the walls, if plastered, have neither whitewash nor paper; and the molding and casings have no paint. Men and women take their food sitting in a row on a bench, like pigs at a trough, as if chairs were a very extravagant luxury.

If man is nothing but an animal, as some of my cotemporaries used to argue, this is all well enough. But if he have a soul with longings for the beautiful, this is very bad. It is a necessary part of self culture to develop this esthetic taste. A man's mind necessarily takes the hue of his surroundings. He can improve himself only by improving the objects with which he comes in daily, almost hourly contact. He does not fulfill his destiny by simply providing for his physical necessities. Other things being equal, he is a nobler and better being, more of a man, for all that he does to make his home tasteful and attractive to his children, and his circle of friends.

When one is to build a house, it costs but a trifle more to make it beautiful. Some actually pay a large premium on ugliness. It may as well be in keeping with the surrounding scenery, and fit into its back ground of hill side and woodland, like a gem in its setting, as to be made a botch and eye-sore in the landscape, by its hideous contrast with every thing lovely around it. It may as well stand in the right place, conveniently situated for the farm work, and a little back from the street, as to be thrust into the highway, as if it were a tavern, where everybody was expected to call. Trees are cheap and convenient in all parts of the land, and no adornments are more appropriate to a country home than these. Rows of elms, maples or oaks along the road side, evergreens by the carriage drive that leads to the house, and upon the plot of land in front, are inexpensive ornaments, that will grow beautiful with years.

The barn and other outbuildings may as well be made tasteful. A little outside beauty will not spoil the hay, or make the grain mold in the bin. Paint will not only be appreciated by the passer-by, but will preserve the buildings, and save the expense of repairs.

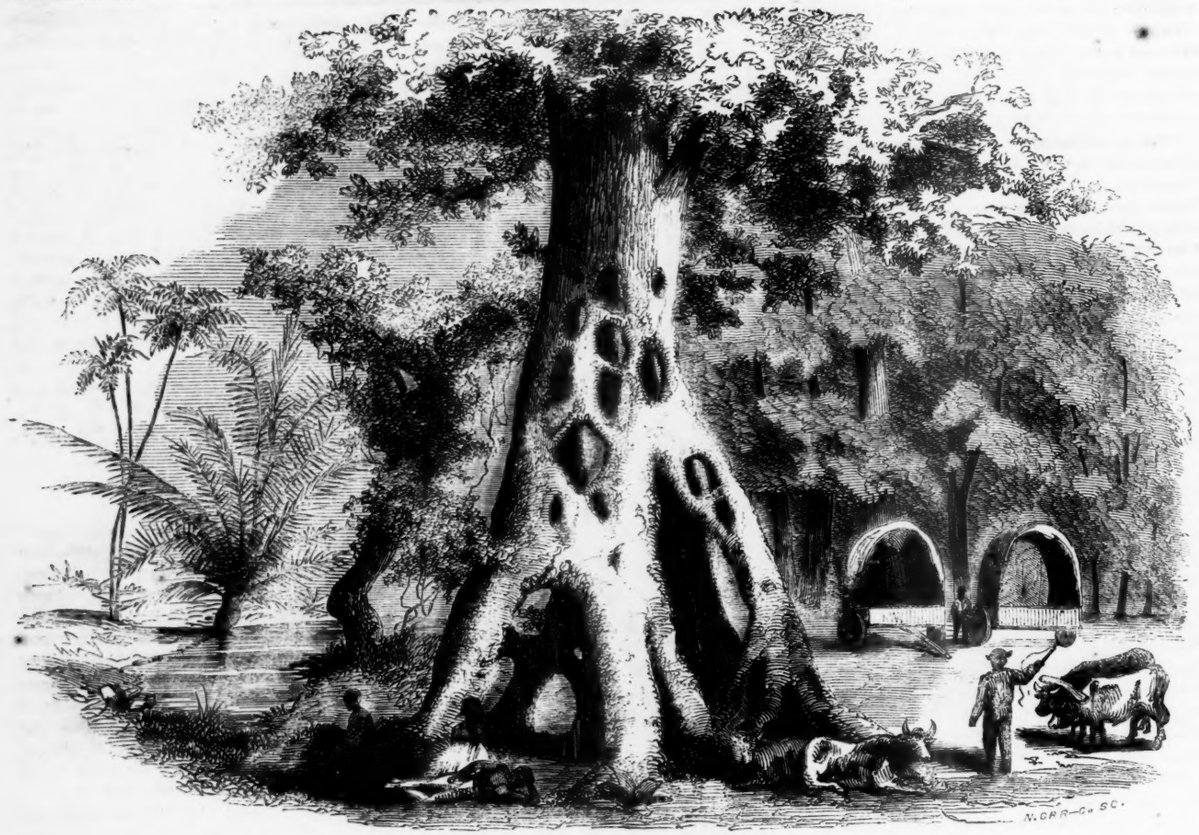
Fruits are quite as nutritious as wheat, corn, and potatoes, and they look a great deal better. An orchard, a fruit yard, should be the chief material glory of the farm. Apples, pears, peaches, and plums, are beautiful in their season upon the trees, and hardly less attractive upon the table, furnishing a dessert better than pastry, and not half as expensive. Grapes hanging upon the trellis, in red and purple clusters, are cheap engravings, with which every farmer may adorn the outlook from his window.

Nothing is more ornamental than improved stock. A horse worthy of the name costs no more to keep, than the spavined jade that makes one ashamed to ride after him. He can be raised as easily, will go much faster, and if you want to sell him, he will bring a much better price. A yoke of grade Devons, red, sleek, and plump, a perpetual feast to the eyes in their elastic step and graceful activity, will cost no more to raise than the ungainly, slow molded creatures that now move about the farm.

The boys and girls that are growing up under your influence, love these beautiful things, and can not help it. They were made to love them, and if they can not have them and enjoy them at home, they will seek them elsewhere, as soon as they are able. The world moves outside of the farm, if not upon it. The farmer can no longer keep his children confined to the narrow circle of his own home, and parish. The locomotive has thrust its iron nose into his seclusion, and the children will see the world before they reach their majority. They will see objects of taste elsewhere, and long to possess them. If the farmer wishes to save them for his own house, or for rural life in his neighborhood, when they come to marry and settle, he must show them upon his own premises that farm life does not necessarily dwarf one's esthetic nature, that the farmer can till the soil, and adorn it, and make his home as comfortable and attractive as that of the citizen. This problem solved, it will be no longer difficult to retain the young upon the farm. It will be a hardship to leave home, and try their fortune in the city.

When to Cut Timber.

Conversing with an intelligent farmer of large experience, upon this subject, we found he fully sustained the views heretofore expressed in the *Agriculturist*, viz.:—that the best season for cutting timber is about mid-summer. His explanation was, that during the latter part of June and early in July, when the foliage is in its fullest vigor, the upward *draft* upon the sap is so great that very little moisture is left in the tree, consequently the timber seasons hard and sound; but that during March and April there is so much water in the wood, that insects bore into it readily, thus producing "powder post" through all the sap portion, and even into the heart wood. He mentioned the instance of a neighbor who cut his timber for a house in June, but when he came to work it out in the Winter, he lacked some ribs or slats upon which to nail the long roof shingles. He cut enough to supply the deficiency during the latter part of Winter, and completed the house. After the lapse of a few years, he examined the roof, and found the slats which were cut in Summer, perfectly sound, while those cut in Winter, were badly affected by dry rot and "powder post." Our informant had also proved the same thing himself. He also remarked that when the object is to induce a free growth of new shoots for a future wood or forest, he preferred to cut in March, as the stumps sucker much more freely then, than when cut away in Summer. The latter, however, is the best season to clear off a growth of wood; the old stumps decay sooner.



A TROPICAL SCENE—THE MATA PALO TREE OF CENTRAL AMERICA.

Drawn from Nature for the American Agriculturist, by A. O. MOORE.

Jottings in Central America.*

BY A. O. MOORE.

Just at break of day, mounted behind the flapping ears of a mule, I emerged from between two rows of palm thatched huts, coming upon the smooth sand of the beach, surf-beaten and hard even beneath the narrow hoofs which bore the burden of myself and baggage.

I was now aroused by a feeling of sudden surprise, to the consciousness that I was really in a foreign land, that these sands were the shores of the Pacific, these trees formed a tropical forest, and that these people of another language and strange customs were indeed the Central Americans, in exploring whose country I proposed to spend a few months.

The bay of Nicoya lay at my right, at the left a tangled mass of trees covered with vines, behind me the village of Punta Arenas, before me the long white line of the beach on which the curling waves were lazily rolling, and the ruddy glow of the Eastern sky gave to the whole scene a beauty beyond description.

Onward jogged the mule till the solitude was at length broken by overtaking a person afoot, a boy about seventeen, with a cocoanut under each arm and a long knife in the girdle at his back. He politely gave me a salutation, and quickened his pace to keep up with the jog trot of my mule, so I asked "where are you going?" "What is your name?" and such other questions as a rather limited knowledge of Spanish enabled me to address to him. He showed himself very sociably inclined, saying many more things than I could understand. I learned however, that his name was Diego, and that he was going part-way on my route.

Two leagues of my journey were now behind me, and the road entered the forest. Quite an agreeable change, I thought, as my eye glanced along the serpentine track which led into the dark archways of the woods; for the sun from the moment of its first peep above the horizon, shone with an ardor almost equal to our Northern mid-day. Now for the first time I stood within a tropical forest. Every tree, shrub and vine, every leaf were new to me, of a new type and manner of growth; but the first overwhelming sensation of awe precluded all study of details. I made an impatient gesture to Diego to silence his chattering, and gazed upward and around among the gigantic forms, towering, wide-reaching, fantastically twining, densely matted, all on a scale of grandeur beyond anything I had ever seen or imagined. It was as if a new planet had received me; one grander, brighter, nearer the sun, and nearer Heaven than the cold grey orb on which I was born. The very voices of the birds added to the strangeness; one single note loud and clear, as if from an organ pipe broke upon the stillness at long intervals. It may have issued from overhead or half a mile distant, it seemed to fill the whole forest, and was a perfect expression of mournful solitude. The "*carpintero*" or carpenter bird, might call to mind our woodpecker, but with a slower more ponderous stroke did he make the woods reverberate. At another moment some of the parrot tribe would disperse every idea of solitude and silence, filling the air with tones of perpetual quarrel; even their brilliant blue and crimson plumage could not long restrain the wish that they would rid us of their company.

While I was gazing abstractedly into the green dome above, Diego had visited a field beyond the edge of the forest, and now returned with his hands full of nuts and fruits, among which were the juicy Marañon, a singular apple-shaped fruit, with its seed or nut shaped like a Lima bean, growing entirely outside of the fruit; the Mango, of beautiful color and luscious taste, being perhaps the most common fruit in Central America, but it is said to produce the "Calentura" or fever. Upon these and one of Diego's cocoanuts we made a lunch, and then started onward.

We soon reached a mountain stream which flowed swift and clear over its rocky bed; looking a little down the stream, one of the most interesting objects met the view. "*Como se llama aquel arbol grande* (What do you call that large tree) Diego?" I asked. "*Mata Palo*, Senor," he replied. We turned aside to get a nearer view of the tree. A group of "Careteros" with their carts, oxen and families had sought this shady retreat for their midday rest; some were sleeping upon the ground, others feeding to their weary oxen juicy stalks of the sugar cane; but *the tree* absorbed my attention, first by its size, but more especially by its curious appearance. For a hight of forty feet it seemed to be composed of six or eight trunks, which had started from the ground, independently of each other, in a circle of twenty feet or more in diameter

*[Our friend, A. O. Moore, Esq., whose pencil has contributed to beautify our former volumes, recently returned from a sojourn in Central America, whence he brought many beautiful sketches of the vegetation, modes of cultivation, and appearance of the people, in that tropical clime. Some of these will doubtless greatly interest the readers of the *Agriculturist*. The sketch given in the present number, not only illustrates a very curious specimen of vegetable growth—one quite common there—but also gives some insight into the habits of the people.—ED.]

and becoming then united in one, thenceforth grew as an ordinary tree, all the branches which each may have borne also being interlocked and united as if grafted together. The utter impossibility of such an occurrence left me, in spite of my many questionings of those about me, without explanation of the phenomenon. The engraving opposite is an accurate representation of the scene.

Becoming weary of my useless attempts in this direction, I amused myself by examining the no less curious people and their rude equipages. I found them polite and communicative. They were of a mixed race between the Spaniard and the Indian, speaking the Spanish language, *comfortably* dressed, that is, having the smallest quantity of clothing consistent with their ideas of propriety, and were either barefooted or wore only sandals. Their oxen were large, well shaped, and in good condition; the method of yoking them is universally by the horns and not by the shoulders. The yoke is a piece of wood neatly shaped, resting upon the neck and firmly tied to the horns; to this is fastened the pole of the cart. Whatever may be the comparative merit of the two kinds of yoke, I must say that I have never seen oxen perform such difficult labor, as, for instance, drawing those rude two wheeled carts, loaded heavily, up and down the undressed mountain roads, rough and stony to an extreme, with so little of chafing and lameness. The carts which were loaded with sacks of coffee brought down from the famous "Cafetals" (coffee plantations) of Costa Rica, were of the rudest construction; the wheels formed of the section of a tree, with a hole in the center to receive the axle, and sometimes shod with iron; while a few hides thrown over the bows, formed the cover. Sugar cane forms almost the only food of oxen and mules, and every hut has as its necessary accompaniment, a patch of bright green cane, which, when once planted, continues to yield from the same roots, almost without further labor from fifty to a hundred years. The stalks are prepared by stripping off the hard external coating, and are then nutritious and palatable

Fig. 2.

to the animals and even to man himself. I left these people with a better opinion of their politeness and intelligence than I fear they had of mine, for my thousand questions and minute examination of many things so familiar to them evidently caused a doubt as to my common sense if not my sanity. We parted however, Diego and I resuming our journey, and the parting salutations of "Adios," "Vaya con Dios Senor," ("To God," "Go with God Sir,") followed us.

But to return to the subject of our TREE. During that day, and in many other days' travel, I saw numerous specimens of the Mata Palo, without coming to a solution of the riddle: after much observation of the tree however, at different stages of its growth, I subsequently learned its history, and how it had earned its name of Mata Palo, or *tree killer*. It was, so to speak, a tree which had fastened itself upon another tree, and eat out its vitals. I found the proof of this in various stages of growth. Thus, as seen in figure 2, the Mata Palo is a

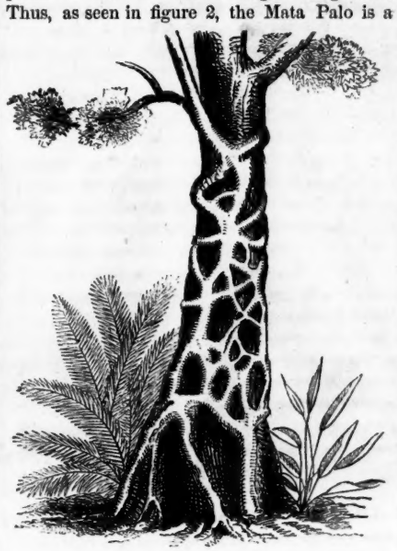


Fig. 3.

puny plant—a parasite growing from a seed lodged in the bark of the original tree. During the long rainy season, it has sent down roots of sufficient length to penetrate the earth. With a rapid growth this plant stretches its trunk and branches right up among the thickest of the entangled mass as if it thrived by crowding. Its descending roots run into the earth, closely attached to the bark by fibrous rootlets, and sending out side roots which stretch around the trunk of its foster parent, and these again branching, soon interlace and grow together, and as they grow, contract the space within their merciless grasp, as seen in our engraving, *figure* 3. The tree thus enclosed can not longer expand its trunk in conformity with the demands of its nature, and therefore dies. In that climate, decay is as rapid as growth, and in a very few years all traces of the old tree have disappeared, and a vacant space is left where it formerly grew. This space indicates the size of the unfortunate victim. The Mata Palo is a species of fig tree, having a milky sap and a small inedible fig shaped fruit, with a glossy leaf, in shape and size like the Rhododendron. In size it becomes a first class forest tree, growing to the hight of one hundred and fifty feet or more.

I saw one instance in which a Mata Palo had found its lodgement on the trunk of a Palm tree. It had followed its usual instincts (if we may so term its peculiar habits of growth) and had duly surrounded the Palm, so that the latter was only visible at two or three points of its stem and at a hight of fifty feet, its plume like top emerged from the arms of its enemy still green and flourishing. It is a fact in vegetable physiology, probably unknown to the strangling brotherhood, that Palms are of endogenous growth; that is, the new layers of wood are deposited within the interior of the stem, while the outside may be squeezed or cut without injury to the tree, and that the stem never increases in diameter, however tall it may grow; quite the reverse of that which takes place with exogenous trees like the Oak, Maple, etc., whose new growths of wood are deposited just beneath the bark. In another instance a Mata Palo had mistaken a column-like mass of rock which had become detached from the cliff. The rock was ten feet in diameter and perhaps twenty feet in hight; it was well bound about with woody cables, but seemed notwithstanding very comfortable. The tree had apparently discovered its mistake, and wore an unthrifty look, though about half grown. One could not help exulting as at a case of disappointed villainy.

Town Trees.

No more is every tree a town tree, than is every man made to live on a pavement and amid piles of brick and mortar. Those trees which grow very large, are not suitable, nor those subject to attacks of insects, nor tender trees, nor weeping trees, nor those which can not endure smoke and dust and hard usage generally. Considering the great number of species and varieties, native and foreign, one might suppose, at first, that it would be an easy matter to find suitable trees in abundance, but it is not so. Some sorts flourish well for ten or fifteen years, but afterward become large and top-heavy, and are blown down by sudden gusts of wind. Some prosper finely when young, but when the bark happens to get a little injured by accident, the growth is suddenly checked, the foliage becomes sickly, and the tree unsightly. Others make so rampant a growth that their foliage hides the view of the houses behind them, and renders the walls damp and unhealthy.

What is chiefly wanted in a town-tree is that it grow slow, never become very large, be proof against insects, bear pruning well, and accidental injuries, also, and in short be very hardy. No tree, to our knowledge, possesses all of these qualities perfectly, yet some do, more than others. For example, the American White Elm, the common English elm, Scotch elm, English Linden, Mountain Ash, Norway Maple and most of our native maples, the Horse-Chestnut, the red and White Beech, and the much abused Ailanthus. Disagreeable as is the odor of the flowers of this last named tree, we believe experience shows that it is in many respects very desirable for planting in towns. It will bear smoke, dust, and any amount of abuse. Somebody has styled it "the Metropolitan Tree." This is certainly more appropriate than the "heavenly" appellation with which it was first introduced from abroad.

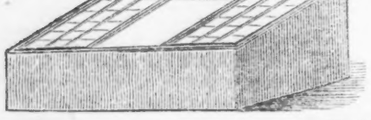
The above trees are proper for setting by the sides of streets. For open squares or parks, we may go further, and include the magnolias, tulip-tree, larch, coffee-tree, yellow-wood, Judas tree, various oaks, the chestnut, and an assortment of conifers. In some of the Parks in this City, the Southern Cypress succeeds admirably, and is a beautiful tree. The Weeping Willow, if sparingly planted, is also suitable, and does well in this latitude and southward.

By a little care on the part of those who have control of the planting, the streets and parks of a city might be made to contain a good arboretum of all the trees growing in the latitude.

Plants in Pits and Cellars.

A correspondent wishes to know what he can do with his many choice plants, in Winter. He invested largely, last Spring, in bedding plants, tea roses, etc., and does not wish now to lose them in the Winter; yet he has no green-house, or frame covered pit to preserve them in.

We should, of course, recommend the trouble of making a cold pit. Dig a pit eighteen inches or two feet deep, in a dry part of the garden, wall it up with brick or stone, or planks. Set over it a frame like the common hot-bed frame, shown in the figure below, and the work is done. Lay a few bricks on the bottom and put over them a board or two as a sort of staging, to keep the plants from excessive moisture. Here, nearly all kinds of half-hardy plants will pass the Winter safely.



But if any one can not afford the time or the money for making such a pit, the next best thing is a good cellar. If the only object is to preserve the plants in a dormant state until Spring, a cellar is better than a green-house. And these are among the plants which will do well in such quarters: Roses, Pittosporums, Fuchsias, Bouvardias, Geraniums, Oleanders, Oranges, Myrtles, Bays, Pomegranates, Aloes, Hydrangeas, Irish Yews, and many more of the hard-wooded plants. Keep the cellar as cool as possible without its freezing. These plants will want an occasional watering, to keep them from wilting.

Winter Protection of Plants.

This is the month in which to attend to the wants of all tender shrubs and plants. There are many things in our gardens, which, if they were as well provided for in Winter as the wild plants of the woods—overhung by trees and covered with leaves—would need no further care; but when in the open ground, exposed to wind and frost and sunshine alternately, they will fare hard if not protected by artificial means. North of this city, many shrubs and nearly all herbaceous plants are benefited by a slight covering. "Slight," we say, for harm is sometimes done by too thick a blanket.

For *plants*, many persons use long manure, putting a fork-full or two about each crown. This is very good, but for most things, a peck of forest leaves is the best protection. These shed the rain like a roof, and keep the roots warm enough without heating them. They will perhaps need fastening to the ground by a few sticks or stones, to prevent their being blown away. Carnations, picotees, daisies, Japan lilies, pyrethrums, snap-dragons and other half-hardy plants winter quite well, in this way.

Tender *shrubs* may be protected easily. Make a small mound of old manure or of leaves around the roots, then bend down the branches carefully to the ground, and fasten them there by short stakes. Now, lay over them a few inches of leaves or any loose litter, and then an inch or two of soil. All that they require is a light and porous covering to protect them from sudden changes of temperature. Of course, it is not expected to exclude frost entirely, for that will penetrate two or three feet in depth.

The above is all the covering that hybrid perpetual roses need, and such shrubs as Forsythia viridissima, Reeve's spirea, and others of like habit. But some tender shrubs have such stiff branches that they can not easily be bent to the ground. These must have their boughs gathered up in a bundle, and then surrounded by a thin sheathing of straw, or old matting fastened in place by stout cords. If evergreen boughs are neatly tied around shrubs, the appearance is much better than that of straw or mats. And for front lawns we recommend this mode: at a little distance, the effect is the same as that of handsomely trained evergreen bushes.

Such tender roses as the Chinas, Bourbons, Noisettes and Teas, hybernate *best* if put into a cool pit, covered with a window-frame. But if the soil be well drained, they will sometimes (with the exception of the Tea roses,) go through the Winter safely out of doors. If this is tried, they should not only be covered with leaves and soil, but should have a little roof of boards, shaped like an inverted eave-trough, to shed excess of rain from them. Still, with the best of care, many will die, and others will come out in the Spring a good deal *scorched*. Last Winter, we kept part of our tenderest roses by potting them in large pots in November, keeping them in a carriage-house chamber until December, then taking them into a light cellar, where they remained until Spring; then they were re-planted in the garden. Souvenir de la Malmaison (Bourbon,) Taglioni and Bougen (Teas,) and Agrippina (China,) wintered well, and flowered abundantly in the open ground throughout the past Summer. Again, we took up several China roses in November, laid them flat on the ground, covered them with the dry tops of phloxes and a few leaves, and finally a few inches of soil; and these wintered better than others of the same kind left standing in the ground and protected in the usual manner.

We relate these experiments for what they are worth; they may benefit inexperienced amateurs. Is it too much to believe that the time will come when we shall be able to Winter many of the tenderest plants out of doors? That will be a good time when it comes.

What of the Spergula Pilifera?

Considerable attention has been attracted to this plant during the past two seasons, especially in England, where it has been extensively advertised as a substitute for lawn grass. It was described as a perennial of low growth, forming a thick, velvety mat of the finest green, and which needed no mowing—the very *ne plus ultra*, for the lawn. Doubts were entertained of its success in this climate, as our Summer drouths it was supposed, would kill it. But it seems not to have realized the promises of the advertisers even in England, whose moist climate was supposed to be particularly congenial to its growth. A writer in the London Gardeners' Chronicle, thus relates his experience.

"I sowed several pans of seed in a cold frame and carefully transplanted to a good garden soil; but in spite of constant attention in the way of watering and shading, they made very poor progress. Other seed which I placed under the protection of a hand-glass also grew up and formed a perfect web, of which I entertained great hopes. I cut it (early in August) into small tufts and planted them upon a terrace where they had a depth of good soil. Their progress was slow but satisfactory until the approach of Winter gave them a sear and yellow aspect, and they did not improve when more genial weather arrived, but began to produce myriads of insignificant white blossoms. Now if the plant is liable to an annual recurrence of these flowers, I say that a grass lawn smothered with daisies, is, for the time being, equally effective and ornamental."

This is contrary to the accounts given of it by some other English cultivators, but what says H. W. Sargent Esq., of our own country, who has now both "Summered and Wintered" it at Wodenethe?

Cultivation of the Hyacinth.

IN THE HOUSE, IN GLASSES AND IN POTS—AND IN BEDS.

Few flowers are more deservedly popular than hyacinths. They are easily cultivated in the garden, *or in the house;* they exhibit a most attractive bloom, and are deliciously fragrant. There is perhaps no finer ornament for a window than a collection of these bulbs flowering in glasses. The following directions for their care from an English catalogue, are timely and valuable.

"*In glasses.*—Nearly all hyacinths are suitable, more or less, for cultivating in glasses, though, in making a selection for that purpose, a larger number of *single* varieties should be chosen, as the certainty of success is much greater with them than with the double kinds. In ordering, special care should therefore be taken to state for what purposes the bulbs may be required, that proper varieties may be selected. It is the natural tendency of all roots to grow downward, avoiding the light—consequently dark colored glasses are preferable for the growth of hyacinths. Let the bulbs be obtained as early as possible after their importation, though the time of putting them to the water may range from the middle of September to the end of November; the earlier however, the better. Fill the glasses with soft clean water till it barely touches the bottom of the bulb. Then stand them in a dark cool cupboard or cellar for at least a month, to encourage the roots to form plentifully before the bloom buds appear. Examine them occasionally while in the dark, and carefully remove any part that may be decaying, at the same time not injuring the young roots. Should the water become foul, change it, but not otherwise. When the buds and leaves have made a little growth, they should be brought into the full light of a window; if in a room where a fire is kept, let them stand in the window furthest from the fire; a cool place is best for them. Never under any circumstances allow them to stand on the mantel piece, a practice often followed, but highly improper. As the flower head rises, a support should be applied. When coming into flower, a little stimulant may be added to the water with advantage. Sulphate of ammonia will be found to add considerably to the intensity of color in the flower, and also to the vigor of the plant—a small pinch between the thumb and finger just dropped into the water will be sufficient.

In Pots.—The soil used, should be rich, and not over light; good loam and leaf mold, with about one fourth of well rotted manure, and a liberal addition of sea, river, or silver sand, would be a good compost. For one bulb, pots 5 inches in diameter at the top should be used; three or five bulbs may be planted in one large pot or pan together with good effect. Let the pots be well drained, and the soil and bulb

placed in firmly, but the bulb not quite covered. When potted, give a good watering, and place the pots in any out of the way place out of doors, covering them with a layer of spent tanner's bark or coal ashes to the depth of 3 or 4 inches above the top of the pots. Here they may remain till they are required, bringing them into warmth and light according to the time they are intended to flower—the less forcing they have, however, the finer the flower is likely to be. When brought into a room, let them be set in the window. All hyacinths do well, and come to the greatest perfection, when grown in pots.

In Beds.—The soil for this purpose should be rich, light, and deep, and above all, well drained. Excavate to the depth of 15 inches, level the bottom, and place on it a layer of 2 inches of small stones, or any similar material that will serve to ensure good drainage. On this lay a thin covering of well decayed manure, and then fill in with the prepared compost, making the bed 4 or 5 inches above the surrounding soil, to allow for settling. Arrange the colors according to taste, and plant the bulbs 9 inches apart, and 3 inches deep from the crown. The time of planting may range from the beginning of October to the middle of November. It will be found advisable, as very severe weather approaches, to cover the bed with a layer of any protecting material.

A Floral Question.

Nobody ever yet saw a blue dahlia, or blue rose, or a yellow aster or verbena. Will such things ever be seen? Some persons think so, and foreign florists are hard at work in hybridizing, hoping to accomplish it, but their success is very doubtful. And for this good reason, viz.: Blue, red and yellow are the three primary colors, and the different hues found in the varieties of any species of flower, are produced by crossing flowers which have these different colors. Thus, the original colors of the verbena in a wild state, were red and blue; and by crossing these, we can get shades of red, blue and purple, but *not yellow*. The wild dahlias are red and yellow, and by crossing them, we get shades of red, yellow and orange, and white, but *not blue*. So far as our observation extends, no genus of any flower contains all the primary colors: hence, if the above theory be correct, none of the varieties can monopolize all the shades of color. One will lack red, another blue, and so on: hence the necessity of combining flowers of different sorts, if we would get all shades of color.

Aristocratic Flowers.

A writer in the Hartford "Homestead," closes a well considered article, as follows:

"There are flowers which seem to be aristocrats by nature. They must receive a great deal of attention; must be "coddled" and petted, and supplied with just the right degree of heat and moisture before they will condescend to put forth their efforts. And after all his pains, the florist sometimes finds, to his disappointment, that they have learned the great aristocratic art of "How not to do it." Parasites attach themselves to these, as to other great people. The mealy bug makes his meals on them; the scale-insect pursues his scaly occupation at their expense; and the red spider becoming a vegetarian, eschews flies and chews upon the choicest plants of the green-house."

Such are the inconveniences of greatness. The more common sorts of flowers, however, are for the most part exempt from the attacks of insect foes. The bees hum around them, and the butterflies hover over them, criticising them, perhaps, as one beauty criticises another, but robbing them of nothing but sweets and odors which they can spare and yet be none the less beautiful and fragrant.

Fruits with Quick Returns.

All Americans are noted for being in a hurry. They want things which will surely pay, and pay quickly. This excessive haste is not commendable. But there are cases in which expedition may be justified. An old man, or an invalid, or the tenant of a hired house may properly wish to plant something of which he may reasonably hope to gather the fruit. Can such people be gratified? Doubtless. Let them plant;

1. *Strawberries.*—From good vines well planted, a little fruit may be gathered the first Summer, and an abundant crop the second. Of course, they will need proper care, if much is expected from them.

2. *Raspberries.*—Set these out in Spring or Fall, in proper soil, cut them down to the second bud at planting, they will throw up strong canes the first season, from which berries can be gathered the second. The white and red Antwerps and the Brinkle's Orange are to our palate the best sorts, but they need bending to the ground every Winter, and covering with an inch or two of soil. The common black and the Allen raspberry require no protection. All kinds yield full crops the second and third years.

3. *Currants and Gooseberries.*—These may be raised from cuttings gathered from any good neighbor's garden, or from young plants bought at the nurseries. In either case, fruit may be expected in from two to four years. It is a wonder to us that the currant is so underrated. If it were a new thing, and slightly tender, so as to need a little petting, wouldn't it be a great affair? But the lamentable fact is, that it is an old customer, is hardy as a burdock, an early and constant and abundant bearer, is subject to almost no disease, and its fruit is wholesome and answers many useful purposes. Alas, for it!

4. *Grapes.*—These sometimes bear, the second or third year from the cutting. From strong layers, quite a number of clusters may be gathered the second year. We doubt the wisdom, however, of cropping the vine much before the third or fourth year. A little patient delay will ensure healthier vines and larger crops afterwards.

5. *Dwarf Pears, Cherries, Apples, etc.*—These often yield fruit the first or second year after planting. As in the case of grapes, it is doubtless wiser to allow no fruit to grow until the third or fourth year.

Need we extend this enumeration? With a well-stocked garden of vegetables maturing the first season, and with fruits coming forward and bearing crops in succession the second, third, and fourth years, any reasonable man will be content.

"Childs' Superb" Grape.

Several handsome clusters of a grape by the above name, have been laid on our table by a friend, who desires to know its origin and its actual value for out door cultivation. It has been somewhat widely disseminated as *a seedling* raised by Mr. Childs of Utica, N. Y., and recommended as a first class grape for *out door* culture. That we might get at the exact truth of the matter, we applied to Mr. Childs for information, and his statement is substantially as follows: Eight or ten years ago, he ordered a lot of exotic grapes from an eastern nursery, suitable for his cold grapery. Among them was one plant which lost its label on its way to him, and whose real name he never ascertained. After it came into bearing, it was found to resemble the Royal Muscadine, but as it differed from it somewhat, the gardener dubbed it "Childs' Superb."

A few years ago, this gardener, fond of experimenting, propagated several plants from this vine, and set one of them in the open ground. He likewise distributed plants to several amateurs in the neighborhood, some of which were set out under glass, and others in the open garden. Of the latter, those which were trained on brick walls, and covered in the Winter, have succeeded tolerably well. In some years, they have escaped mildew, and borne handsome clusters; at other times the foliage has turned brown and the fruit proved worthless. On the whole, the best that can be said of this grape, is that it succeeds about as well out of doors as the Madeira, Sweet-Water, or any other foreign grape. Under glass, it is excellent in every respect.

To the above, we would just add that some fifty vines which we saw last Summer in the open grounds of a nursery, were badly scorched with mildew, and presented a sorry look by the side of the same vine under glass, and of natives in the open garden. Any body wishing to experiment with a foreign grape in his garden, will do well to try this. The chances are against his success, but if the frost and mildew will only let him alone, he will raise some "superb" fruit.

Northern Muscadine Grape.

A WORD OF CAUTION.

Now that grape growing is attracting so much attention throughout the country, it is to be expected that advantage will be taken of the comparative general ignorance on the subject, to send out inferior varieties, to the great disappointment of those who are attracted by showy hand-bills and glowing descriptions. We have received a flaming circular, highly eulogizing the Northern Muscadine Grape and illustrated with a cut representing it as of great size. The advertiser states that: "after a trial of fifteen years with all the different varieties of hardy grapes grown in this country to the amount of 30 or 40 different kinds, the *Genuine Northern Muscadine* has yielded us, in point of profit, as ten to one of any other kind." Very likely, but money making by the propagator, is not always a test of excellence, as purchasers of Honey Blade Grass seed at $10 per bushel can testify.

The above grape was brought before the public several years ago, but its foxy, wild flavor was opposed to its general introduction, and it is not to be found in the catalogues of the best grape growers, although newer sorts are grown by the thousands. It originated among the Shakers of Columbia Co., N. Y., and is thus very accurately described by Downing. "Bunches small, short, compact. Berry large, round, chocolate, or brownish red. Skin thick, with a pungency and odor common to the wild fox grape, and is very little improvement on it. The berries fall from the bunch as soon as ripe, about two weeks before the Isabella."

Pruning Grape Vines.

For our readers of several years' standing, who have their former volumes to refer to, there is no need to say anything on the management of the vine. But for those who have them not on hand to refer to, and especially for our new friends, a word or two may not be amiss, and now especially, in this month of November, the best season at the North for the annual pruning.

There are several methods of training now in vogue. One of these is the German mode, practiced in our Western vineyards; according to which, one or two canes are trained to a single stake, or two stakes, and during the season while these canes are bearing fruit, two others are being grown for fruit-bearing the following year. In the Autumn after these first canes have yielded fruit, they are cut down, to give place to the second. The following cuts (Figs. 1 and 2) may illustrate this style of training:

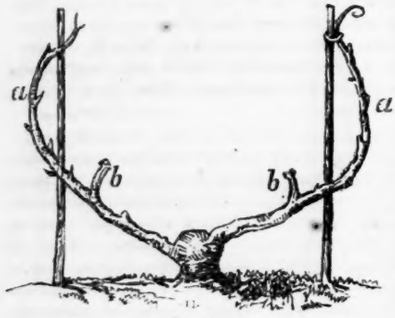


Fig. 1.

a, *a*, *a*, are the fruit-bearing canes of the present year, and *b*, *b*, *b*, are the spurs from which canes are to grow for fruit-bearing the next year.

Mr. Wm. Bright, of Germantown, Pa., has put forth a modification of this method, and claims for it superiority over all others. He recommends growing only one cane each year, and confining it to a stake four or five feet high; and he would grow this cane one year and fruit it the next, and so on alternately, as long as the vigor of the vine can be maintained. As the merits of this method were pretty well canvassed in "A Talk at the Gate," in our last number, we will say no more about it at present. We question whether it will succeed, in the long run, but hope it will, for it certainly has its advantages.

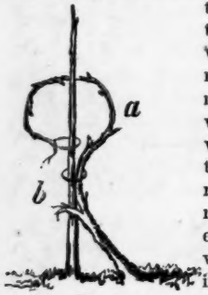


Fig. 2.

According to the other leading modes, vines are trained to trellises, and are pruned on one of two plans, viz.: the *renewal*, or the *spur* method. By the first, the two-year-old canes having once borne fruit, are cut away to allow room for an equal number of one-year-old canes to do the same thing. And while these latter are fruiting, a new set of canes are growing up from the bases of those cut away, to bear fruit in their turn: and so on from year to year, so *renewing* the wood of the vine every other year.

By the second method, the old canes are not cut away, but shoots *on the sides* of them are cut down every year to one or two strong buds at their base. Each plan has its advocates; the latter, we judge, is the most commonly practiced. The former has several important advantages: it brings in, quite often, a large quantity of new wood, and enables the gardener to get large clusters from the lower half of his trellis—a thing seldom done by the other method.

We will explain each mode quite briefly:

1. *The Renewal.—First Year.*—Beginning with a young vine, let only one strong shoot grow the first year: tie it to a stake, and pinch off, during the Summer, whatever suckers spring up from the roots, and whatever laterals push out from the axils of the leaves. In the Fall it will present the appearance shown at Fig. 3.

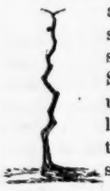


Fig. 3.

Second Year.—In the Fall (November,) cut this shoot back to three strong buds, and bind it to the ground, and cover it lightly with litter or common soil. Next Spring, uncover it, about the middle of April, tie it again to a stake, and let two of the strongest shoots grow, pinching out all others, laterals and suckers, as seen at Fig. 4. No fruit, of course, should be allowed to form on the vine this year.


Fig 4.

Third Year.—In November, cut back both canes to within three feet of the ground, and protect them as before during Winter. Be careful in binding them to the ground, not to break the canes or bruise the buds. In the Spring build your trellis. Use cedar posts rising six or seven feet above ground, and stretch wires from one to the other, at eighteen inches apart; or light bars of wood may be nailed on in place of wire. Now, raise up the canes, and tie them horizontally to the lower bar or wire of the trellis. Let one shoot grow up on each side of the central trunk, and one


Fig. 5.

from each extremity of the horizontal canes. In the Fall, the vine will look something like Fig. 5.

Fourth Year.—In the Fall of this year, shorten in the upright canes to about four feet, and those on the right and left extremities to within about two feet of their last year's growth. Lay down the vine as before, in the Winter. In the Spring, tie up the two leading shoots perpendicularly to the trellis, and the others tie down to the lower bars, horizontally. During this Summer, a few clusters may be allowed to grow on the upright canes. Two new upright canes should be trained up also, all others being cut off as they appear. Shoots should also be trained off obliquely from the terminal buds of the horizontal branches, as was done last year. This is done to extend the vine right and left, and to spread it uniformly over the trellis.

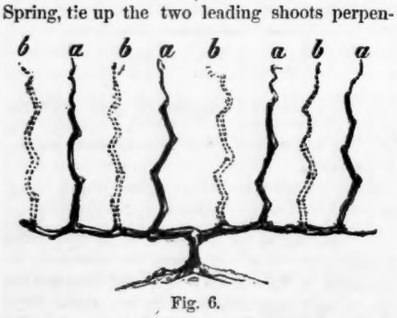


Fig. 6.

Thus we may proceed from year to year, until the trellis is covered. The vine will then appear as shown in Fig. 6. After the vine has been brought into this form, all the pruning needful will be to cut out each alternate cane in the Fall, gathering fruit from the canes of the preceding year's growth.

II. *The Spur Method.*—This system may be applied to a vine which has first been established


Fig. 7.

in the other mode; only the canes must not be allowed to stand on the trellis nearer together than eighteen inches or two feet, thus allowing for the growth of spurs or side shoots. Or the canes may be trained off obliquely, in a sort of fan-shape, like Fig. 7. But however managed, the main branches are not to be cut away, they remain permanently from year to year. Shoots pushing out *from the sides* of these permanent canes are to be pruned back every Autumn, to one or two strong buds near the base of each shoot. Fruit bearing branches will start out from those spurs.

Our own experience does not lead us to recommend one of these methods to the exclusion of the other: we practice both, and secure good results from them. Those trained in the spur method, are the least difficult to lay down for Winter protection, and if a cane becomes injured, its place can easily be supplied. The renewal method gives us the finest clusters and those most evenly distributed over the trellis. Either method *well followed out*, is a thousand times better than the no method so widely prevalent.

Wild Grape Wine Manufactory.

From the Boston Cultivator we learn that the mammoth wine presses of Messrs. Paige & Co., under the Boston City Reservoir were set at work about Sept. 20th, or rather later than last season, the crop not ripening as early. Grapes are likely to be very plenty; one man in Rhode Island has contracted with the firm to furnish 20 tuns. Connecticut and Massachusetts are also supplying large quantities. Two years ago, no less than sixty tuns of wild grapes were made into wine at these presses, and such has been the demand for "American grape Wine," that very little of that vintage remains on hand.

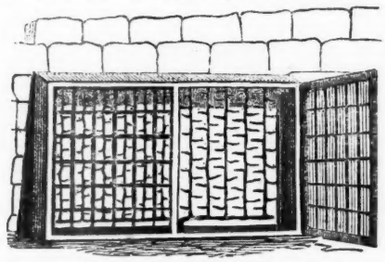
FRUIT VERSUS GOLD.—The California Farmer states that the sales of fruit from the farm of G. G. Briggs, of Marysville, amounted last year to over $100,000, and doubts whether any single gold mine in California, yielded as much during the same time.

LONG LIVED APPLE TREE.—It is stated that an apple tree on the premises of Dr. Elisha Lord, of Abingdon, Mass., has borne large quantities of excellent fruit every season for seventy years past, and is still in vigorous condition.

Grape Growing under Difficulties.

Fruit-growers at the far North sometimes complain that they can not ripen many of the better grapes, because of early frosts. The Isabella, Diana and Catawba approach maturity, and give promise of large crops, when lo! severe frosts set in, and the work and hope of the whole Summer are destroyed: the grapes are frozen when only half ripe. This has happened, to our certain knowledge, for two years past, in a certain hilly district, not fifty miles north of Albany. Such calamities can be avoided, of course, by building regular glass houses; but graperies are so expensive that only a few persons, here and there, can indulge in the luxury. So, again, the attempt to raise choice foreign grapes in the open air of this country, is seldom successful, on account of the attacks of mildew.

Both of these difficulties can be met quite well, by the contrivance shown in the sketch below. This is nothing more than a vine trained against a wall, and enclosed in a rough frame with a glass front. Such a frame might be built against the south side of a high fence, or a shed, or any other out-house. It may be made of undressed plank, by any one handy with a few carpenter's tools. The glass frames can be bought without much outlay of money. They should be hung on hinges, so as to open and shut at pleasure, according to the demands of the weather. (In some quarters, we regret to say, a lock and key would be a useful appendage, when the grapes



begin to ripen.) Supposing the vine to be seven feet high and twelve feet broad, the cost of the whole need not exceed $10. The sash should be taken off, and put under cover in Winter.

We will just add that a friend of ours, in a Northern county of this State, hastens the maturity of his grapes by simply training them on a brick wall built for the purpose, and covered with a coping or shelving projection eighteen inches wide. The latter is designed to protect the vines from untimely frost.

THE BEST ARGUMENTS FROM THE GROUND.—A correspondent in sending a list of subscribers for the *Agriculturist*, alludes to his experience with that class of persons who know too much (in their own opinion) to take an agricultural journal, and says: "I can not find time to leave my farm to argue the point with such, but if I stay at home and *raise* some arguments on my farm, perhaps they will be convinced that it is to their interest to take such a paper." Truly said—ten extra bushels of corn per acre, are worth more in such a discussion than a hundred lectures. Let every farmer practice as well as read reliable teachings, and others will not be long in finding out and adopting the secret of his success.

VERY OBVIOUS.—The editor of a new agricultural paper we have just received, says in his opening address, "there is scarcely a farmer among us who has not become enlisted in the dignified pursuit of cultivating the soil." May we inquire, what is the occupation of the *farmers* who are not 'enlisted in cultivating the soil?'

A Cheap Pump.

W. R. Bunnell, Fairfield Co., Conn., gives the following method of constructing a cheap and efficient pump. He takes wooden tubing, such as is used for the endless chain pump, of any required length, and having nailed it a little more firmly upon the sides to make it water tight, drives in a plug at the lower end and tacks it there. The plug has an inch auger hole bored through it. The bottom of an India rubber shoe is nailed over the hole on the upper side of the plug for a valve, as shown at Fig. 1. Next sharpen one end of a stout wooden rod, and nail a piece of stiff leather upon this end, so as to make a funnel-form bucket to play inside the tubing as seen in Fig. 2.

Fig. 1.

The leather may be four or five inches wide, or sufficiently large to fit snugly against the sides of the tube; the edges may be sewed or tacked together along its sides. The upper end of the rod may have a lever handle attached to it if desired, but there is so little friction, it will hardly be necessary, as the pump will work sufficiently easy after the manner of the old fashioned dash churn. A simple cross-piece at the top is, however, convenient. A wooden spout can be introduced at the upper end, as in any other pump. The upper box or bucket will always sink below the water, and be ready for immediate use at all times until the cistern is dry. To guard against frost, a gimlet hole should be bored in the tube, to let off the water below the freezing line.

Fig. 2.

Mr. B. constructed one for his own use, the whole cost of which, for a well 19 feet deep, was $1,65, and he likes it better than any pump he has seen. This is, at least, a convenient and cheap method of fixing a temporary pump to drain a cellar, clean out a cistern or well, etc.; and being portable, can easily be changed from one use to another, or laid away until wanted. Where the ordinary tubing can not be had, a carpenter can easily make two trough gutters by planing out two pieces of narrow plank with a rounding plane, and then nail them together. It is not necessary that the hole should be exactly round.

Cement Water Pipes.

A correspondent inquires if good, reliable pipes can be made of water-lime cement, for bringing water from a Spring distant a half mile, to his house.

Undoubtedly so. First, excavate your ditch full three feet deep, to be secure against frost, and wide enough for a man to stand and work conveniently in it. If there are moderate inequalities in the surface of the land between the spring and your dwelling, it will make little difference, if there is a general descent. Make the bottom of the trench smooth; mix your mortar in the usual way, two thirds sand and one third lime, the sand being coarse and clean.

Provide a trough six feet long, four inches wide and four deep. Fill this with mortar and then turn it suddenly over, depositing the mortar in the bottom of the ditch. Immediately imbed the rod which is to make the bore, in the mortar, and then invert another box full of mortar upon it. Now, carefully draw the rod nearly out, invert another box of mortar in the trench, and proceed as before. The rod may be of any size desired, from half an inch to an inch, or two inches. One inch will answer for all ordinary purposes. At all times, but especially in laying the pipe through hollows, be sure to make the joints tight, and let the mortar be a little thicker there than elsewhere, or there will be danger of bursting from the great pressure. Nor should the water be let into the pipe while the cement is soft. At the highest point in the line, remote from the spring, it is important to insert an air-tube to rise to the surface of the ground, so as to let off the confined air that may be collected at that point; else the water will not pass freely. This tube should be covered and protected against injury from man, or beast, or frost. The writer has known pipes of this sort when poorly made, to be a continual annoyance from bursting and stopping up; others when well made and cared for, have lasted fifteen years without any repairs. NEW-HAMPSHIRE.

REMARKS.—The above plan is simple, cheap, and expeditious, and will doubtless operate well, if care be taken to withdraw the rod carefully, so as to keep a good connected passage for the water, and to have each successive layer of mortar well joined to the preceding. It is, of course, needful to secure hydraulic lime (water lime) of good quality. In and around this city the "Rosendale" brand is generally preferred. A paper read at the recent Newport meeting of the American Scientific Association, by an officer of the U. S. Army—we forget his name—gave an account of a large number of experiments to test the hydraulic cements from different localities for the use of building forts, navy-yard docks, etc. He gave the preference to the Rosendale, in Ulster county deposits, but stated that there, a marked difference in value was found in the material from beds lying near together. We took notes of the paper when it was read, but as the Association will publish it in full in the course of a few months, we will wait until its appearance, and then give some interesting facts and figures on this important subject. In the meantime we shall be glad to receive items of information from our readers on the same topic, which is becoming more and more one of practical utility to farmers as well as others.

The best plan of making water pipes with hydraulic cement is probably that described at length in the *Agriculturist* for May, 1856—Vol. XV., page 175.—ED.

Take Care of the Chimneys.

In many houses which are built by the job, or in considerable haste, the chimneys are apt to be poorly made. Not only should the bricks of which they are built be hard, and laid up in the best of mortar, but the inside should be plastered smooth as the work proceeds. This last operation tends to promote a good draft, fills up the chinks between the courses that might otherwise be overlooked, and prevents, in a great measure, the accumulation of soot on the sides of the chimney.

But when, from any cause, a chimney becomes foul, the only way is to take care of it; otherwise the soot will fire up, some day, when one least expects or desires it. Washing-days

and baking-days, if the roof is dry and the wind brisk, are fine times to get up a conflagration. Shingles burn well at such a time. Still, if one does not want such costly sport, let him take a calm, moist day, and burn out his flues. Put a faggot of straw in the fire-place and set it a-fire. Or, if you have only a stove-pipe hole, stuff in a large roll of newspapers, and touch them off. If the draft becomes too strong, partly close the hole below. Attend to this burning once a year, and you need have little apprehension from fires in your chimney.

RIGHTING A LEANING CHIMNEY.—A leaning chimney can be made perpendicular by simply sawing out portions of the mortar upon the side from which it leans; the saws being kept wet, to make a soft bed for the chimney to settle in. This method was recently tried with success at Port Dundas, Scotland, upon a chimney which was 468 feet in hight, and 50 feet in diameter at the base. Twelve cuts were successively made at different hights.

A Cheap Coal Sifter.

Enough coal to supply hundreds of families is every year wasted by carelessly throwing away the cinders unsifted. In large cities, many of the poor get their whole supply of fuel, by raking over the heaps where servants or others have thrown out the half burned clearings of the grate, or stove. The sifter described in a former number of the *Agriculturist* is very convenient, and will soon pay for itself in the amount of coal saved, besides rendering the ashes more fit for purposes of manure. For those who can not well obtain such an apparatus, the following which will answer every purpose, will be valuable.

Take an old sugar barrel with a handled cover, cut two holes in the top of the chimes on opposite sides, two inches deep and two inches wide. Buy a common sieve for a shilling, strap it to an old shovel, and place it in the barrel, the handle in the holes or rests above mentioned. Put your coal into the sieve, put on your cover, take hold of the old shovel handle and shake, with as much side motion as you please. Take off the cover, lift the sieve by the handle and turn the coal, at arms length, into your hod.

For the American Agriculturist.

Untidy Housekeeping—Women not always at Fault.

[PRIVATE NOTE.—What follows is not for housekeepers to read themselves, but for them to mark, and place where their poorer halves will be pretty sure to see it.—ED.]

It's all very well, Mr. Editor, to be lectured about our housekeeping, to be told of the comfort, the felicity, and all that sort of thing, which a tidy, well kept house will afford, but for one, I'm getting a little impatient that writers generally take it for granted that the ladies alone are responsible in this matter; that if dust collects on the furniture, if litter is strewn on the carpet, if the table linen is not snowy white and the cooking stove jet-black—in short, if every thing is not in the very best "apple-pie" order, it is because the mistress of the house is a slattern. That *may* be the case I admit, but again, it may not be. Here is an illustration: My friend Mrs. F—— lives in a two story house on the main village street, where there is almost constant travel over the unpaved road. Much of the time, clouds of dust fill the air, and come sifting through every crevice, settling down upon the carpets and furniture, and reducing every thing to a most undelightful uniformity of color. The good woman sweeps and dusts, to little purpose—to keep clean, she would have to dust the air itself. Now, when that house was built, she tried her best to have Mr. F., lay the foundation further back from the street; there was room enough, but no, he must be on a line with his neighbors. One would think he might now fill the small yard with trees to exclude part of the dust, or cover the road with gravel, or occasionally spread tan bark over it, to keep it from rising; but instead of that, he wonders that Mrs. F., does not keep the parlor neater. When it rains, the dust settles into mud, and Mr. F. *looks* bad words at the tracks on the kitchen floor, but he has never laid even a plank walk from the street to the door, and the edge of the sill is the only foot scraper. Mrs. F. long ago asked for a closet with hooks for hats and clothing, and shelves for the children's books, but to this day, these articles are distributed about upon the mantel piece, and on nails driven into the wall—that is, when *she* places them there, for the boys imitate their father, and lay their things on the first vacant chair, or in an unoccupied corner. His lordship uses the stove for a spittoon, and the tablecloth for a napkin, he smokes in the sitting room, and mends his harness in the kitchen, and thanks Mrs. F. for her constant endeavors to be tidy under such difficulties, by wishing she would keep a neater house. If any one wants further evidence that the men need a share of the lecturing, let them visit the house where the wife has been absent a few days, and my word for it, they will be ready to make some allowances for the apparent short comings of the HOUSEKEEPER.

A Word for the Babies.

To the Editor of the American Agriculturist:

Is it not a little singular that while the kitchen, the parlor, the bed-rooms, and even the garret and cellar, receive their due share of attention in the *Agriculturist*, few of your correspondents have a word to say about the little ones? Nice furniture, good cooking, proper table manners, etc., are all important in good housekeeping, but what mother would not rather hear about her baby, than any other subject that can be introduced. Listen to the conversation when ladies meet of an afternoon. What "dear little creatures" they are, to be sure, how cunning, how forward, or—how troublesome. Then too, observe how when a visitor wishes to ingratiate himself with the head of the family, he addresses himself at once to the baby; if he can win a smile there, he need not fear an unfavorable reception from the mother.

It makes me smile to read the plans laid down in some books for doing the household work. There is an hour set for rising, so long a time for getting breakfast and clearing up, so much for sweeping and dusting, etc., and so on to the end of the chapter, making every thing go by the clock, and like clock-work—on paper. Who doesn't know, that forty times a day, whether washing, ironing or baking, when baby cries, every thing must be dropped at once, and its mouth be stopped in some way?—some mothers know only one way, but of that hereafter. Why you might as well lay down the number of hours each day that a sailor shall have his sails up and arranged in a particular manner, and expect him to get safely to port. The first *squall* knocks all such calculations overboard.

Now, since these costly little treasures necessarily take up so much time and attention, and in view of the inexperience and ignorance of thousands of young married people, it appears to me, that if some capable mother would teach us *how to take care of the baby*, she would add interest to your columns, and be a real benefactress. I'm sure the household nursery is worthy of as much attention as the tree nursery, to which you devote a column monthly, and if you agree with me, we may hope that this subject may hereafter receive due attention. MARTHA.

REMARKS.—A most excellent suggestion; certainly, let the babies receive their share of attention. Who will tell our readers, how to keep them comfortable and healthy, how and when to feed them, how to amuse them, to give them proper exercise, describe their proper clothing, and a hundred other matters that a *man* would never think of? We will cheerfully make room for good *practical* suggestions, however faulty may be the style—that can easily be remedied in the editorial mill, where most contributions are ground over.—ED.

Errors in Dress.

It need not cost much money to dress well, and on the other hand a person may be expensively and yet not well dressed. Foreigners say that American ladies spend more for clothing and ornaments, than those of any other nation, but they do not express the opinion that the ladies of this country are more attractively arrayed than those of Europe. Some one has made a whimsical calculation after the following manner. "There" says he, "goes a lady with fifty bushels of corn upon her back,"—her silk dress equaled the market value of the corn, another had a bale of cotton in her bosom, represented by a diamon pin, a third carried two tuns of hay upon her head in the shape of a bonnet, and another was encumbered with a quarter section of land in the form of a brocade skirt. Yet not one of these persons was well dressed. The observer looked upon them as he would into the window of a dry-goods store, or a jeweler's shop; he saw a splendid display, but it attracted attention from the wearer, to what she carried. The object to be gained by taste in dress is to adorn, to attract attention to the wearer, and to highten the pleasure of looking upon her. Now if the bonnet, the shawl, the jewelry, or the dress is the center point of attraction, they detract from, rather than add to the wearer's charms. A good writer on this subject has said: a lady is well dressed, when you can not remember a single article of her clothing—meaning that no one thing should be so conspicuous as to attract attention, but that all be suited to the peculiar bodily habit of the wearer. Now, whatever fashion may dictate, it can not make the same *style* suit a tall and a short person. The present amplitude of crinoline gives a rather queenly air to a tall dignified lady, but upon a short, and especially upon a corpulent person, its effect is ludicrous. When narrow striped stuffs are worn, they make a person appear taller, and a very tall lady should shun them unless she wishes to highten her apparent stature; let her rather adopt wide stripes or large figures, or patterns which have a contrary effect. So too in the matter of colors. At one time pink is the prevailing style, and it suits a dark complexion quite well, but it gives a frightful greenish hue to one of very fair or pale cheeks; such should choose green or blue tints if they would appear well in preference to being

fashionable, while darker colors are safe to nearly all. Again, good taste is greatly violated by a wrong assortment of colors in dress. Thus a violet bonnet may be entirely spoiled by blue flowers, or a yellow skirt by a pink sash. Green associates well with violet; gold with dark crimson or lilac; pale blue with scarlet; pink with black and white; gray with scarlet or pink.

The most objectionable and perhaps the most common fault to be avoided, is want of harmony in the richness of the several articles composing the dress. Thus we often see a costly mantilla thrown over a cheap delaine; a gaudy bonnet accompanied by a cheap shawl; a splendid parasol shading a "lady" in calico. Such a contrast reminds one of the school boy who invested his first half dollar in a pair of silk gloves, and was saluted by his comrades with the cry, "patch on both knees, and gloves on!" The delaine, the calico, the mantilla, the parasol may all be well enough by themselves, but they do not accord well together; for harmony is the very first essential in correct taste.

Pudding and Pies—A Domestic Chat.

"How is it, wife, that we have had neither pies nor puddings of late?" said my good man one evening, as he sat in his favorite corner, while I was washing the dishes. "For the simple reason that I have done making them," I replied. "Of pies, you eat the inside only, leaving the crust to be thrown away because of its toughness, though I always use plenty of shortening and work it in well. And as for puddings; I have tried nearly every recipe in the books, and found them troublesome, expensive things to make, and when done, fit only for the stomach of an ostrich!" "Yes Madam, that is just so. We too have often been obliged to swallow a queer mixture of fruit, and a leathery substance, (supposed to be dough) asking no questions for conscience' sake, but wanting to ask a good many for the stomach's sake."

Just then fortunately Aunt Keziah, as we all call her, came in, and I stated the case to her. "Give up puddings and pies!" exclaimed she, "not until you've tried my way, and then I warrant you'll not give them up." "In your book recipes," continued she, "they almost always spoil puddings by putting in too much fruit. Use only half the fruit mentioned, and you will have a better pudding. I like a pudding made in this way: In a quart of milk stir three well beaten eggs. Toast and butter a large slice of bread, cut it in pieces an inch square, and stir into the milk; grate part of a nutmeg over it, sweeten to your taste, then let it bake. If you wish to add fruit, a handful (a quarter of a pound) is sufficient.

For another good pudding, to one quart of milk add two table spoonfuls and a half of rice, sugar to your taste, a little nutmeg or cinnamon, and a lump of butter half as large as a hen's egg; this baked slowly for two or three hours, will be of the consistence of jelly, and very nice. An improved method of making custard is as follows. Scald a quart of milk and pour it over four well beaten eggs, stirring meanwhile; sweeten and flavor to your taste; then pour into your cups and bake. Custard made thus requires fewer eggs and is richer.

You can make pie crust or pastry tender and flaky in the following manner. To a quart of flour add a third of a pound of lard, a fourth of a pound of butter, and a teaspoonful of salt. *Mix lightly with a spoon*—don't think of kneading it, for the more you work it the tougher it will be—then add enough cold water to moisten it. Take out what you require for one pie, and sprinkle enough flour over it to roll it, line and fill your dish; then for the top repeat the above process, spreading on a piece of butter as large as a hickory nut. Then dust on flour, and fold the dough together before rolling it. This recipe never fails to make excellent pie-crust. The secret lies in *not kneading* it. Pastry should be manipulated as little as possible.

I followed Aunt Keziah's directions, and now my husband compliments my puddings and pies so much that I am vain enough to think them worth a place in the *Agriculturist*.

ALICE.

Those Pickled Apples.

A lady reader says: "Don't fail again to tell the housekeepers who read the *Agriculturist* how to pickle apples in the manner described by you some two or three years since, with any improvements in the process. I have for two years put up pickled apples in the way described, and we all value them very highly."

We have found no improvement upon the plan referred to, which was this:

Take a peck of sweet apples and pare them. Boil them until tender in a syrup made of 4 lbs. of sugar and a quart of vinegar; then remove them from this syrup, and make a new syrup of 5 lbs. of sugar and a quart of vinegar, to which add two teaspoonfuls each of cloves and cinnamon, tied in a bag; let this syrup boil 15 or 20 minutes, and pour it, while hot, over fruit. The first may be used for other sauces.

The Editor With his Young Readers.

THANKSGIVING.

In most of the States, "Thanksgiving Day" comes during this month. Soon the turkies and ducks and chickens will be selected and shut up to fatten, the golden pumpkins will be brought from the field to be melted down into rich pies, the cook books will be hunted through to find dishes fit for American Sovereigns on their high feast day; the housekeepers will be filled with busy cares of preparation, and the boys and girls with anticipations of the "good time coming."

This keeping of an annual feast is one of the best American customs. A few years ago it was confined to New-England where it originated, but it has now become national—every State, we believe observes it. Rare times we have enjoyed on such occasions, when all the family, young and old, were gathered at home, and the day was spent in reviewing the events of the year since last we met.

Do you know how the custom originated? It was in one of the early colonies of New-England. One year they had not raised enough to live upon, and unless help should come from the Mother country, England, they must perish. It was a sorrowful time, and they appointed a day of fasting and prayer, that God might send them relief. The day before that so appointed, a ship laden with provisions arrived, and the fast day was changed to a feast, and a Thanksgiving Day, and it was thereafter commemorated yearly.

Would you not have been truly thankful at such a time? But is there not reason to be more thankful to the kind Providence that has given the sunshine and rain, the favoring seed time and the bountiful harvest, and thus prevented our being reduced to danger of starving? When the day comes, sit down in the morning, and endeavor to write out how many kindnesses you have received during the previous year, and you will soon find that there is cause enough to be grateful to the Giver of all good.

A SMALL MAN.

He was six feet high and well proportioned, but that did not make him great, as you shall hear. It was near Thanksgiving Day, and he called on the Minister at whose church he sometimes attended, to inform him that he need not buy a turkey, for he himself had selected the best one in his yard, a noble fellow, for the minister's especial use. Sure enough, the evening before Thanksgiving, the man appeared with the turkey, which was indeed a magnificent bird. The minister thought he could do no less than invite so kind a friend to dine with him, and the invitation was quickly accepted. About dinner time the man made his appearance, bringing with him his wife and three children, which were more than were expected, but nothing was said, as the turkey had made them welcome. The dinner was duly attended to, the boys, particularly, doing wonders in the eating line. As they were about leaving the table the minister remarked "that was a noble turkey, he must have weighed at least eighteen pounds." "Just that, to a notch, replied the man, *and he comes to one dollar and eighty cents.*"

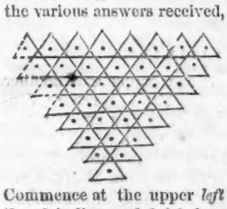
The minister was too much taken aback to say a word; he paid the bill on the spot, and very properly concluded that it does 'take all sorts of people to fill the world.'

NEW PROBLEM.

We have space this month but for one puzzle, but must give our "little folks" more room hereafter. No. 29.—An *Illustrated Rebus*, a very good motto done up in the picture language. What does it read?

ANSWERS TO PROBLEMS IN SEPT. AND OCT.

No. 24. *Dot Puzzle.*—We have found by inspecting the various answers received, that there are many ways of drawing the lines according to the directions given, and we have accordingly given credit to all who succeeded, though their method differed from that here shown. Commence at the upper *left hand* corner, follow the plain line, and finish by passing over the *dotted* line.



No. 27. *Enigma.*—A daily morning newspaper.

No. 28. *Illustrated Rebus.*

Be not too wise, nor over nice,
For if you be, you little see
How like an idiot you be.

Nearly all who sent answers to this, omitted the word "little," but as they were so nearly right, we have given them credit.

Correct answers received up to Oct. 10, as follows: John E. Hardisty, 24; William Follet, 25; R. R. Murphy, 24; Frank B. Ridgway, 25; Ermon A. Hull, 24; A. M. Sigmund, 24, 25, 26; A. Gonnier, 25; Robert M. Hasbrouck, 25, 26; John A. Johnson, 26; Joseph Clayton, 24, 25; Geo. L. Emery, 24, 26; Wm. P. Kochenour, 26; Wm. Macy, 25, 26; both answered in rhyme, which we have no space to print; J. Conway Shaler, 25; E. Cook, 24, 25, 26; Helen M. Peck, 28; Jarvis H. Arnold, 28; Martha A. Campbell, 28; Joseph T. Mason, 28; Louis Andrew Jackson, 28; "Glen Cove," 24, 28; M. B. Eshlman, 27; John Halifax, 28; T. M. Hequembourg, 24, 27, 28; Hiram Mulue, 24, 25, 26; James McKill, 26; Gilbert Spicer, 27; Willie J. Rice, 28; Clara A. Boyce, 28; H. H. Bayley, 28; Mary E Emery, 28.

THE KNITTING LESSON.

(Engraved for the American Agriculturist.)

ABOUT THE PICTURE.

Happy little Jennie! and happy grandmother too; for she enjoys the teaching as much as Jenny delights in learning. Notice how affectionately the dear old lady's arms are thrown around her little grand-daughter, who loves to be so encircled. She could have picked up the dropped stitches, or shown Jennie how to seam, or to set the heel, just as well without drawing her so near, but she loves to have her there. This is the charm of this beautiful picture; it makes us love them both as we look upon it. No wonder the little girl looks so intently to see how the thread should be placed; her grandmother is so gentle, and so patient.

How neat and tidy every thing looks about the room; and they love flowers too, as you see by the plant on the shelf near the window. With such good influences around her, Jennie can hardly fail to grow up a pleasant, loving, and good girl. We can quite easily imagine the history of this little family. Jennie's father and mother are dead. She had no home when they left her, but her grandmother has taken her, and as she cares for her, she is often reminded of her daughter, Jennie's mother, whom she once instructed in the same manner.

Perhaps in looking at the picture you can imagine a story that will please you better than this; and it will be a good exercise. In this way the imagination is cultivated, by which we may create a little world of our own, and place in it such inhabitants as we choose. If we are careful to think only of objects that excite proper feelings, such story-making will give us healthful pleasure. It is for this purpose that pictures like this, full of good sentiments and suggestions, are introduced here from time to time, so that you may be instructed as well as amused. Do you like such teaching? Well, we trust you may remain in the *Agriculturist* school many years, and that the lessons given, will not be lost. We feel sure they will not, and this makes our labors doubly attractive.

DON'T FRET.

"Was there ever such a piece of work as this, Aunt Carrie," said Lina in great disgust. "I have sewed this sleeve in wrong side out and I took such pains with it too—It is too bad," she continued, throwing the work from her.

"I am really sorry, Lina, but I would not waste any time in fretting. You could have ripped out a good many stitches by this time. Just as soon as as you see clearly how and where you have made an error, set right to work and mend it. There is my little knife, dear, it will take but a few minutes to undo your work, then you can start fair again."

In a very little time the seam was taken out, and Lina looked up more pleasantly.

"There, Auntie, I am just where I set out once more. If it had not been for you" she said laughing, "I should not have begun to take it out this half hour yet. It seemed an endless task."

"Lina, did you ever hear your mother speak of Miss Philena, the seamstress in this village in its primitive days?"

"Yes, indeed, and I have laughed over her queer sayings more than once. Father often quotes her."

"I have often quoted her to myself, or at least a little incident in her experience; especially when I was tempted to get out of patience with my work. She was a poor, industrious body, rather odd in her ways, but a favorite everywhere. One week she was making a coat for Beriah Applebee, and it was one of the few great occasions of her life. She felt to the full the solemn responsibility resting upon her. Cloth was *cloth* in those days, and had to come 'all the way from Connecticut.' Commonly people dressed in homespun, and it was not quite so serious a business to make that up. But this beautiful bottle green cloth was on her hands, and she was all of a tremor with excitement. Every day 'Riah' came in to see how she was getting on, and that added to the poor little woman's disquiet. At length, the last of the enormous button holes was neatly finished, and she slipped in the big buttons, about the size of sauce plates, to see the effect. No one can describe her feelings, when she saw for the first time that she had made them on the *wrong side.* What was to be done! The cloth was ruined, and she could never hope to save money enough to pay for it. But Beriah's good old mother cheered her up. 'You just come right into my little bedroom' she said, 'and pick out the stitches very carefully, then you can darn them up so nicely nobody will ever know it when the buttons are sewed on.' Philena did as she bade her, and no one was ever the wiser for her mistake, until some years afterward when the coat was turned and made over; then the old button holes came just right. That was much more of a task than taking your sleeve out, wasn't it Lina?"

"Yes indeed, Auntie, and I will try to remember it when I get so out of patience with such a trifle again."

JUDGE NOT FROM APPEARANCES.

A lady friend contributes for the *Agriculturist* boys and girls the following capital story showing the danger of judging from appearances.

"When I was eleven years old, my mother removed to the country. Our nearest neighbor was a minister, by the name of Wayland, who in addition to his ministerial duties, owned and cultivated a large farm. One night my attention was attracted to a bright light in one of the upper rooms of our neighbor's house. In a moment I saw the wife fly past the uncurtained window, closely followed by the husband, who was armed with a huge fire shovel—round the room she went, still pursued, and as I listened breathlessly, I thought, nay I was sure, I heard a scream. I hastened to my mother, and told her what I had seen, and we both looked out, but the light was gone, and all was quiet. Notwithstanding my mother's judicious warning "to say nothing about it to any one," before school was out the next day, I had confided it to my bosom friend, and in a week half the village knew it, and a great talk it made, I assure you. Finally it reached the ears of the deacons, who at once proceeded to investigate its truth. My mother looked grave and troubled when they called, but conscious of having told only the truth, I met them fearlessly and related what I had seen. Then they left, taking a "bee line" for the minister's, to call him to account. With many apologies they made known their errand, when to their surprise, the minister burst into a hearty laugh. "Wait a moment," said he, "till I call Polly. You see, that night I found a big rat in the meal chest, and came down for the shovel, and bade her hold the light, while I killed him. Finding no other place to hide, the rascal took refuge in the folds of her dress, and she ran screaming, till I managed to dislodge and kill him."

I have ever since been careful not to repeat an unfavorable report about my neighbors, at least until I knew the whole truth."

ONE DROP AT A TIME.

Have you ever watched an icicle as it formed? You noticed how it froze one drop at a time until it was a foot long or more. If the water was clean, the icicle remained clear, and sparkled brightly in the sun; but if the water was but slightly muddy, the icicle looked foul, and its beauty was spoiled.—Just so our characters are forming. One little thought, or feeling at a time adds its influence. If each thought be pure and right, the soul will be lovely, and will sparkle with happiness; but if impure and wrong, there will be final deformity and wretchedness.

Into which are thrown all sorts of paragraphs—such as NOTES *and* REPLIES *to* CORRESPONDENTS, *with Useful or Interesting Extracts from their Letters, 4c., 4c.—to be drawn from whenever we have room left here.*

Premium Queries.—To a multitude of letters making inquiries about our premiums, we have not been able o make any other reply than to send a marked paper. We have tried to give all needed particulars under the appropriate head. See the remarks under head of "Premiums for 1861" on page 348, and also the several tems on the last page.

Returning Articles.—We can not possibly return articles or contributions not published. Those wishing copies of articles sent in, should copy them before forwarding the original manuscript. The non-appearance of an article for six months, is no certain indication that it will not find an appropriate place within twelve months.

Fastening Cattle in Stalls.—E. Moultrie, Monmouth Co. N. J. A strap buckled around the animal's horns, with a ring, to which a small chain or rope may be attached by a "snap," is convenient. The rope or chain should play up and down freely on the stanchion.

To Prevent Horses Rubbing.—C. D. J., Westchester Co., N. Y. recommends as a preventive of horses rubbing their tails in the stable, to hang a bunch of thorns behind them. This is objectionable; many horses will be taught the dangerous habit of kicking, by this means. A horse rubs because there is itching, the cure for which is thorough cleaning with the brush. If there be irritation, use a little oil upon the parts.

Saving Horses from Burning.—It has often been found that when a stable was on fire, the horses, terrified by the flames, refused to leave the building, and many have thus perished. In the Spirit of the Times, it is related that on such an occasion a gentleman harnessed his horses, and they were led out without difficulty. This may be the case, but it would often be impracticable from the rapidity of the fire. A simpler method, which is said to be effectual, is to blindfold the horse, before attempting to remove him.

What is the Turkish Bath?—C. J. Farnham, Kendall Co., Ill. This apparatus recently recommended as a cure for pleuro-pneumonia in cattle and horses, is simply a tight room or box supplied with means for raising the temperature of the air to a high point. There is some danger that its use may be carried too far, we think, after reading an account from a gentleman who gives his horses such a bath every week, though they are in perfect health. He says his horses enjoy it greatly, and enter the room of their own accord as soon as the door is opened.

Remedy for Laurel Poisoning.—David Hall jr., Sullivan Co., Pa., writes, that when sheep are poisoned by laurel, the effects are soon seen in their staggering gait, and that they can be readily cured by administering nearly a teacupful of water saturated with salt.

Scrub Oak.—I. B. Hitchcock, Cherokee Nation. Samples sent appear to be Quercus *ilicifolia*, a shrub from 3 to 8 feet high. The annual appearance you speak of, was caused by their being burned down each year.

Cedar Berries—Will they Grow.—S. Gilbert, Muscatine Co., Iowa. The *Cedar* (*cupressus*) has no berries, but produces seed in small cones, like the hemlock. The juniper, to which you probably refer, has a berry like the red cedar (*Juniperus Virginiana*), which will grow by sowing in the Fall, as soon as ripe.

Wheat and Chess.—Since our offer in the October *Agriculturist* of $500 for chess grown from wheat seed, numerous communications have been received, telling how the thing *may* be done—as sowing upon hard beaten soil, allowing it to winter-kill, letting poultry range over it, etc. To which we reply, accomplish the *result* according to the terms proposed, in whatever way, and the reward will be paid.

"Spot" the Humbugs.—On page 324 we have offered a word of caution which seemed to be specially needed. We refer to the matter again to ask those who have been recently fleeced, or who may receive circulars etc., to send us the particulars, in such a form that they may be used as evidence if needed. We know of several suspicious establishments, but they operate through the mails and always *at a distance from the city*, so that it is difficult to secure available evidence sufficient to warrant us in publishing them. In one case there are at least four enterprises all carried on by the same concern, but under four different names. As we have before stated, farmers as a class are more easily deceived than others, because being less crafty themselves, they are not suspicious or on the look out for fraud. It is on this account that we feel specially called upon to warn that class where the *Agriculturist* is most largely patronized.

Arbor Vitæ from Cuttings.—W. D., Essex Co., N. J. The Arbor Vitæ will grow from cuttings, but only in the hands of a skillful propagator. Several things are essential to success, as a proper mechanical condition of the soil, just enough moisture, shade, heat, etc., which an inexperienced person would hardly secure.

"That Oregon Tree."—G. F. Whitworth, Thurston Co., W. T., alluding to the shrub spoken of by P. Reitz, page 114 April *Agriculturist*, thinks it the Ceonothus, and has decided it to call it C. *odorata*, from its fragrance. He does not find it described in Michaux and Nuttall's work, nor in any treatise he has seen.

Non Bearing Plum Tree.—J. W. Bucher, Northumberland Co., Pa. The "Peach Plum" tree does not bear very young. Quite likely your five-year-old tree will yet yield fruit.

Form of Hedges.—The best shape for a hedge is, narrow at the top and wide at the bottom; it is thus more fully exposed to the light. When cut perpendicular, it can never be kept close, for the lower branches will die out. The Norway Spruce is said, by John P. Cushing, to be superior to the Arbor Vitæ for a hedge; the spruce bears cutting equally well, and is not likely to be winter-killed.

Quince Stock for Pears.—S. R. Baily, Allen Co., O. The Angers Quince, which is propagated by layers and cuttings, is used for dwarfing pear trees. They are kept for sale at most extensive nurseries.

Fall Grape Cuttings.—A correspondent of the Ohio Cultivator recommends fall cuttings of grapes. He says that on the 7th of October he cut 38 cuttings of the Delaware Grape, two or three eyes to each cutting, tied them together, dug a hole in the garden about three inches deep and covered them up, in the Spring took them up and planted them: of 38 cuttings, 36 are growing finely.

Cutting Grape Clons.—C. M. G., Broome Co., N. Y. Cut in November or December, from well matured wood; if intended for grafting, bury in sand or earth in a dry-cool cellar to keep them from starting early; and graft about the middle of May, under ground.

Location of Vineyard.—"Southern Subscriber," Rockingham Co., Va. Your location on the banks of the Shenandoah river is a good one. I there is a clay subsoil, underdrain thoroughly, and plow and subsoil deeply, manuring well before planting. As the wild vine flourishes with you, the cultivated ones should succeed well.

Grapes from Wayne Co., N. Y.—Specimens of Isabella, Diana, and To Kalon, received from W. F. Steele. Isabella lacked flavor and sweetness; Diana was very fine, and To Kalon good. Mr. S. says Isabella mildews badly and Rebecca slightly, with him, while the Delaware is quite free from the disease. The Clara mildews as badly as any foreign variety.

Rhubarb—Distinguishing the Varieties.—J. McMeekin, C. W. It is not easy to name a particular kind of rhubarb; but the Linnæus, which you ask about, has a stout stalk of medium length, quite red where it starts from the root, and is very tender and less acid than most other sorts.

Wild Tomato.—J. Jenks, Wright Co., Minn. The fruit and leaves sent are a species of the Physalis—probably P. *viscosa*, and the berries may be eaten with impunity. They are cultivated in many places with good results. We highly prize the fruit for sauce, pies, jellies, etc., and have a large patch growing in our garden. They have been much improved within a few years by cultivation. They are usually known as the "Winter Cherry" from their long keeping properties.

Paid for Itself.—Amos Heater, Mason Co., Ill., writes, that squashes of the Leghorn and Hubbard varieties, raised from seeds distributed free from this office, brought him the premium at the County Exhibition, so that his *Agriculturist* subscription paid for itself.

Physalis.—Mr. Douglass, Essex Co., N. J. The specimens you sent, are different varieties of the Physalis—one is the *viscosa*, another the *tomentosa* (the purple sort), but neither is the *alkekengi*. It is well to be cautious in the use of some varieties of this family, as they so closely resemble the poisonous nightshade, that the inexperienced might mistake the one for the other.

Cranberries in Ill.—W. E. Thomas, De Kalb Co., Ill. Your 160 acres of low land which is covered with water from November to April, will make an excellent "Cranberry patch." Plow as soon as dry in Spring, and set out roots of the Bell variety, two feet apart each way; keep down the grass and weeds, and you will soon have a mass of vines covering the ground.

More Large Squashes.—S. R. Baily, Allen Co., O., writes that from one seed received from the *Agriculturist* office, he raised thirteen very large squashes, besides twelve or fifteen which were picked off when small.

Deep Bins for Potatoes.—C. J. Welsh, Madison Co., Ind., recommends that potatoes be placed in deep bins, rather than spread over much surface. He says they are less liable to decay. This, quite likely, is true. The natural resting place for tubers during winter is under the surface, where light and air are mostly excluded.

Yellow Bellflower Apple.—E. C. Holmes, Plymouth Co., Mass. This variety is usually considered an abundant bearer, but so far as our own observation goes, it usually bears a full crop in alternate years only.

Ventilating Barrels of Fruit.—A correspondent calls attention to the necessity of allowing free access of air to fruit sent to market in barrels; particularly if it be packed soon after gathering. Inch-auger holes should be bored in both heads of the barrel to allow the moisture to pass off freely. For want of this precaution, apples frequently arrive in market in an unsalable condition, or shrivel and decay soon after opening.

Great Yield of Wheat.—Thomas Thornbury, Clinton Co., writes that the yield of Wheat in Iowa the past season, is unprecedented. Several large fields in his neighborhood are mentioned as giving from 30 to 40 bushels per acre for the first return from a virgin soil. One man gathered 105 bushels from two acres. He thinks the average yield of the State amounts to 25 bushels per acre. The Corn crop also is very large, yielding in many instances 75 bushels per acre.

Marking Bags.—C. L. Davids, Rensselaer County, N. Y., urges the propriety of farmers keeping their names plainly marked on implements, bags, etc. A branding iron may be purchased for a few shillings. Where this is not easily obtained, black paint answers a good purpose. A sheet of lead, with letters cut through, and laid on the article to be marked, makes the process very expeditious.

Prolific Wheat.—We have seen samples of a white wheat, plump but small berry, resembling Fife wheat, *said* to yield 70 bushels per acre in Minnesota. It is claimed that it originated from a few kernels found in some straw from Germany. It is a bearded sort, short but shouldered or branching heads, but whether a Winter or Spring variety, we are unable to say.

Subsoiling easily Done.—A. W. Parsons, Westchester Co., N. Y., while plowing last Fall, followed in each furrow with a light one horse plow and found it to answer a very good purpose. Where the soil is not too heavy, this method is well worth a trial.

Cleaning Seeds.—T. J. H., Armstrong Co., Pa., Tomato, cucumber, and other similar seeds, that are enveloped in a slimy pulp, are best cleansed by washing. A convenient method is to lay the pulp containing the seeds on a sieve, and place it under a stream of water, at the same time gently rubbing them with the hand. When separated from the pulp, spread upon shelves or sheets.

$1 Well Expended.—Elias Westfall, Washtenaw Co. Mich., writes that he had a large strawberry bed which yielded little or no fruit, although it always flowered full. The Article in the April No. of this Vol., page 117, describing the male and female plants, enabled him to determine that his were of a female or pistillate variety, which needed to be fertilized. He procured male or staminate plants, and gathered an abundant crop of fruit—sufficient to pay many times the price of the *Agriculturist*.

Tulips from Seed.—W. R., N. Y. Tulips bloom the second season from seed. There is no definite way to secure a certain color, but seeds from highly colored flowers will be likely to produce a rich bloom. Better select the *bulb* from some extensive collection, while the flowers are in bloom, which is the only method of obtaining a particular sort.

Keeping Marvel of Peru.—J. Taylor, C. West, keeps roots of this flower in sand or dry earth in the cellar, and by planting in the Spring, gets an earlier bloom, with larger and finer plants. He thinks that those who once try this method, will not return to seed sowing, except when the roots have run out.

Blue Flower from Iowa.—H. A. Terry, Pottawotamie Co., Iowa. The spike of pretty diminutive blue flowers which you speak of as a sort of perennial shrub, is unknown to us, as are many of the wild prairie flowers. We should judge it worth cultivating, the fragrance adds much to its value.

Wild Flower.—Wood Anemone (*Anemone nemorosa*).—F. M. Smith, Ramsey Co., Minn. The flow-

ers you send, appear to be of the above species; usually found in the margin of woods, and in bloom during April.

Ashes for Rose Bugs.—"A." of Chambersburg, Pa., writes, that wood ashes sifted over the bushes will expel rose-bugs. This remedy we know to be good against the *slug*, but the true rose-bug, in this vicinity at least, is not so easily got rid of.

Snuff for Plant Lice.—Jonathan Highman, New Haven Co., Conn., writes that after trying various other applications, he has found Scotch snuff sprinkled upon the leaves and branches of infested plants, a sure remedy for aphides or plant lice.

Potato Bugs.—W. J. Erskine, Vanderburg Co., Ind., writes that the Potato Fly (*Cantharis vittata*) has been very destructive in his neighborhood the present season, and inquires for a remedy. Have any of our readers succeeded in preventing their depredations? These flies may be turned to account, as they are useful for making blister plasters. They might be collected by sweeping over the tops of the vines with a sheet held by two men so as to form a bag, then dropped in hot water, dried, and sold to druggists.

Arsenic for Insects.—John A. Ferguson, Berkshire Co. Mass., writes that a locust tree nearly destroyed last season by borers, was saved by boring a three-eighths inch hole in the trunk, inserting three cents worth of arsenic, and plugging it up. The grubs soon disappeared, and have not returned this season. [We can not commend this treatment. If the arsenic saturates the wood enough to kill the insects, it would in most cases injure the tree, and certainly be dangerous for fruit trees.—ED.]

Castor Oil Plant and Moles.—A correspondent writes that he once bought what was recommended as a sure recipe for driving away moles. It was to put castor oil beans in their burrows. He found the beans would not "go down," with the moles—they all *came up*.

Drowning out Moles.—Milo Black, Hamilton Co., O., advises to open two holes at some distance apart, in the mole track, and pour several pails of water into the upper opening. He says with this treatment the mole will soon show his "patent forks"—[If he *happen* to be at home.—ED.]

A Colony of Sky-larks.—A. J. Hunt, Washtenaw Co., Mich., writes that last year while plowing Summer fallow, he came upon a nest of sky-larks, which he protected from disturbance, and he has now upon his grounds a colony of 14 or more of these sweet song birds. It is to be hoped they may receive general protection and become widely disseminated.

Robert Burden, Queens Co., N. Y., states that a bird answering the description given of the sky lark has been seen by several persons in the neighborhood of Ravenswood. Attention was at first attracted by his peculiarly sweet song. The little warbler has been fortunate to escape the tribe of bird murderers that swarm over the country adjacent to this City.

Houses for Bees.—T. M. S., Hartford, Conn. The most successful apiarians prefer to set their hives in the open air, during the summer season, at least; many leave them with only the partial shelter of an open shed, the year round. When a house is used, the bees are only allowed access to the hives through openings left for the purpose, all other communications with the interior of the house being closed.

Ventilating Cellars.—L. C. Waters, Onondaga Co., N Y. writes that a well ventilated cellar is less likely to suffer from frost. He had been much troubled by vegetables freezing in his cellar several years, although it was made perfectly tight by banking against the sides of the house, and about the door and windows. Last season this was neglected, and to his surprise, nothing in the cellar froze. The moisture from the vegetables and from the soil passed off freely, and the air being dryer, became a poorer conductor of heat, and enough was left to keep the temperature below the freezing point. Provision should be made for ventilation when building, by carrying a flue from the cellar, by the side of the chimney or elsewhere, up to the top of the house.

Tarring Shingles.—J. C. H., Patterson, N. C. referring to our inquiry published in the July *Agriculturist* writes: A house stands near me, that was covered in 1807 with shingles first dipped in well boiled tar, and after the roof was put on, a coat of well boiled tar was applied with a brush, and before hardened, a good coat of clean fine dry sand sifted over. The roof is pretty good yet. The tar should be boiled enough to harden when cold.

Cement for Roofs.—A. J. Duncan, Iowa, inquires for the best roofing cement. He has tried a mixture of rosin and tar, applying it to the boards, covering this with roofing paper, then giving another coat of tar and rosin, and covering the whole with sand while the cement was hot. This he says answers in warm weather, but is cracked by frost.

Filtering Cisterns.—S. D. Ingham, Brown Co., O. The proposed arrangement might answer a very good purpose, provided the cistern were always nearly filled. When the water is low, it might pass through the filter too slowly to supply the inner reservoir.

Filtering Spring Water.—S. R. Griggs. The plan proposed, of attaching a filter to the head of an aqueduct through which water is conducted from a spring to the house, would work well. The water would thereby be freed from clayey or other deposit washed in during heavy rains, and insects, etc. be kept out. The charcoal should be broken into small lumps—say the size of peas.

Artesian Well at Columbus, O.—In the July *Agriculturist*, page 200, we gave a full account of this undertaking, which had then reached a depth of 2,388 feet. The work is still progressing, and at last accounts a depth of 2,575 had been attained. Experiments were made to ascertain the temperature at that distance below the surface. It was found that the mercury registered 88°, an increase of one degree for every 71 feet. This differs materially from the increase at other places. The average increase in the coal mines of England is one degree for each 44 feet, while the Artesian well at Louisville, Ky., shows an increase of one degree in 67 feet. Several of the lead and silver mines of Saxony, indicate a rise of one degree in 65 feet. It has long been known that the temperature rises as we approach the bowels of the earth, and it is quite interesting to observe the variation of this increase in different places. It has generally been supposed that the heat is greater in the vicinity of volcanoes, and the low rate of increase at Columbus—a long distance from volcanic action, in part verifies this opinion.

Wagon and Carriage Makers, who are not already aware of the fact, will be glad to learn that there is published in this City a very good journal devoted especially to their calling, viz.: the "N. Y. Coach Makers' Magazine." It is now in its 3d volume, and is well worth the attention of those interested in this branch of business. E. M. Stratton, Publisher, 106 Elizabeth-St.

Agricultural Scrap Book.—C. S. Keep, Portland Co., Conn., suggests that an Agricultural scrap-book, to contain pieces occasionally found in other than agricultural papers, would be valuable. Occasionally items of importance appear in local papers, but there is so much nonsense published in these fugitive paragraphs that they would form an unreliable guide. As a matter of curiosity, and for occasional reference, it would be interesting. A good agricultural paper, with a character to sustain, will be a found the safest counsellor.

The Age of Horses, as is well known, is determined by the appearance of the teeth. It is difficult, except after long practice, to judge accurately after the animal has passed his ninth or tenth year; the directions laid down in the books, are not very clear on this point. A little work of 47 pages on this subject, just published by Louis Brandt, a German Veterinary Surgeon, professes to give infallible marks by which to tell the age of a horse up to twenty years or more. It is abundantly illustrated with drawings, and if it prove reliable, will be well worth the price asked, $1 per copy.

Every Body's Lawyer, by Frank Crosby, Phila., 1860.—12 mo. 384 pp. This work contains plain and simple instructions for transacting business according to law, with legal forms for drawing the necessary papers. Its instructions are calculated to keep its readers out of law.

Veterinary College at the West.—Dr. Geo. H. Dadd, Veterinary Surgeon, and one of the editors of the American Stock Journal, recently called on us, on his way to the West, where it is proposed to establish a Veterinary College—probably at Cincinnati, O. We commend the enterprise to the hearty co-operation of our Western friends.

How much is a "Horse Power."—Daniel Evans, Wood Co., O. In estimating the power of engines, one "horse power" is taken as equivalent to a force sufficient to raise 33,000 lbs. one foot in one minute. This standard was first adopted by the English engineers, Bolton and Watt.

Weather Notes from the Cherokee Nation.—I. B. Hitchcock, of Cherokee Nation, west of Arkansas (latitude 36°), sends weather notes kept through Jan., Feb., March, and a portion of April. The notes were made at sunrise, and during Jan. the mean temperature was 30¼°—lowest 8°, and highest 61°. The mean for Feb. was 31½°.—lowest 5°. highest 56°. For March, the mean was 38½°—lowest 16°. highest 62°. Snow had fallen six times and it had rained ten times.

Connecticut Pins.—J. Mix, New-Haven Co., Ct., sends samples of pins manufactured by the American Pin Co., which appear to be all that is needed in a pin—neat, solid heads, and needle like points. Most of the pins heretofore made, have had too blunt a point.

The Hydropult.

This instrument described in the August *Agriculturist*, page 236, is evidently gaining in favor with the public. Our commendation might seem to be partial, the company being our tenants, but we have no interest whatever in its manufacture or sale. The following extracts will show how highly it is approved by others.]

From the New-York Daily Tribune.

FIRE AT THE AMERICAN INSTITUTE FAIR. It may be remembered that on the night of the 5th of October, 1858, the Crystal Palace, in which the annual fair of the American Institute was being held at the time, caught fire by some accident and was completely destroyed. Singular to relate, on the night of the 5th of this October, last Friday at the same hour, and under almost similar circumstances one of the main buildings in which the Institute Fair was being held at Palace Garden, took fire, and very narrowly escaped destruction. The Janitor was lighting the gas, when he accidently ignited some fancy festoonings in the hall; and in an instant the flames were overleaping each other in all directions, and at such a hight that it was impossible to throw water on them by ordinary means. Fortunately for the exhibitors and visitors, one of the articles on exhibition at the time was Vose's Hydropult, a pump with hose and suction pipe attached—so light that it can be carried about by a child—yet capable of drawing the water from a pail, tub, or reservoir, and sending it to a great hight. One of the waiters in the refreshment saloon seized this little force-pump and threw several pails of water through it up to the fire, and extinguished the flames in a few minutes. Had it not been for the Hydropult, the entire building and all its valuable contents must have been consumed. The managers of the fair awarded the highest medal to the American Hydropult Company, in recognition of the valuable service which it rendered them in this emergency.

From the Journal of Commerce.

HOW PALACE GARDEN WAS SAVED FROM FIRE.

AMERICAN INSTITUTE,
NEW-YORK, October 13, 1860.

To the American Hydropult Company.

In compliance with the request of one of the officers of the Company, I take great pleasure in certifying to the efficiency of the hand engine, or portable pump, which you see proper to call the "Hydropult," or water thrower.

At the late fair of the Institute, at Palace Garden, in lighting the gas for the evening, fire was communicated to some light combustible ornaments, and the flames quickly communicated to the canvas and board ceiling of the roof. The roof was so high that there were no means of reaching the fire by ladders, or otherwise, and one of your hydropults being on exhibition, it occurred to one of the floor clerks of the exhibition to bring it into use.

With a single pail of water, and this little instrument, the fire was almost instantly extinguished. It was the general impression that three or four minutes' delay would have resulted in the certain destruction of the building, and all present concurred in the opinion—or rather in the certain conviction—that the Hydropult saved the Institute from a similar calamity which on the same day of the month, two years before, laid the Crystal Palace in ashes.

Very respectfully, THOMAS McELRATH,
Corresponding Secretary American Institute.

From the New-York Dispatch.

Sewing Machines.—WHICH IS THE BEST?—THE QUESTION ANSWERED.—There can be no doubt that WHEELER & WILSON'S Sewing Machine is the very best the market affords. Everybody says so, and that a large majority of people *prefer it for family sewing*, while Dress-Makers, Shirt-Makers, Corset-Makers, Gaiter-Fitters, Shoe-Binders, Vest-Makers, and Tailors, all use it, and insist there is no equal for *their* purposes, clearly establishes the fact that it is unequalled for the variety of uses to which it is adapted. The WHEELER & WILSON Machines make the lock stitch, *the only stitch that cannot be raveled*, and that presents the same appearance on both sides of the seam—a fact of itself sufficient to account for its having the highest premiums awarded it at all the State fairs held for the past few years. No other than the Lock-stitch has given such universal satisfaction, and our advice is, if you want a Sewing Machine that will do your own family sewing *in a very superior manner*, or if you wish to earn a livelihood by sewing for others, do not get any other than a WHEELER & WILSON Machine, and you will then feel certain that you have one that will give you the fullest satisfaction.

Market Review, Weather Notes, etc.

AMERICAN AGRICULTURIST OFFICE,
New-York, Friday Evening, Oct. 19, 1860.

Our market report for the present month is more satisfactory than any one we have been able to make for at least two years past. As we intimated in a leading article on the crops, last month, the continuous reports of bad weather in England, have not been without some foundation, as many dealers were trying to hold out was the case, at the time our article was written. Later advices show a marked deficiency in the wheat crop of Great Britain, and the export of grain and flour is now going on at a very rapid rate. The shipment of wheat from the port of New-York for the week ending Oct. 13th, was greater than during any previous week in the history of our country. Prices have of course advanced both here and in the interior of the country, and we are happy to be able to report most encouraging prospects for farmers.

It is a noticeable feature in the market that flour has not advanced in the same ratio with wheat. The rise on the former has been but 15 to 25 cents per barrel, while wheat has gone up 10c. to 15c. per bushel, equal to an improvement of 50c. to 75c. per bbl. for flour. Hence, it is obvious that millers who continue to manufacture flour, are working at a loss. Toward the close, holders of flour are beginning to realize more satisfactory prices, and it is not at all improbable that the future will more nearly equalize the relative value of the raw material and the manufactured article. The exports of both have been very heavy indeed, and extensive shipments continue to be made, chiefly, of course, to British ports. It is worthy of remark, in this connection, that California, heretofore an importer of Breadstuffs, has this year become an exporter, and a surplus is now being shipped to Australia, Great Britain, and to New-York, reversing, so far as this port is concerned, the course of trade. It will be observed by examining our tables, given below, that in Corn, a decrease of receipts and sales has taken place. Prices, however, are higher. Although there is a very large stock, especially of mixed Western, in store, it is being reduced very rapidly, the current sales being much heavier than the arrivals. Rye has been scarce and wanted. ....Barley has been more plenty and more active, at an improvement....Oats declined early in the month, but are now rising again, the inquiry for them being good.... With unfavorable crop accounts from the South, and an active demand here, prices of Cotton have advanced about ½c. per lb., closing with Middling Upland at 11¼c., and other grades at proportionate rates per lb. The recent unfavorable change in the weather, together with moderate receipts and improving accounts from Liverpool, have stimulated business in all our markets. The demand has been chiefly for Middling and the upper grades, which, owing to their scarcity, have brought higher rates than could probably be supported should the weather again become favorable. Local speculation has already partially discounted the effect of a killing frost. The selection at present on the market is deficient in quality and staple, but the later pickings are expected to show an improvement in these respects....Hay and Hops have been in active request, and the latter have advanced.... Tobacco has been in lively demand at somewhat firmer prices....Seeds have been more sought after....Wool has been quiet at unchanged quotations....The movements in other kinds of Produce have been moderate.

CURRENT WHOLESALE PRICES.

	Sept. 19.		Oct. 18.	
FLOUR—Superfine to Extra	$5 15 @	5 60	$5 40 @	5 75
Superfine Western	5 15 @	5 30	5 40 @	5 55
Extra Western	5 40 @	7 00	5 65 @	7 25
Fancy to Extra Genesee	5 65 @	7 00	5 80 @	7 25
Super. to Extra Southern	5 70 @	7 50	5 90 @	7 75
RYE FLOUR—Fine and Super.	3 50 @	4 30	3 50 @	4 20
CORN MEAL	3 35 @	3 90	3 50 @	3 90
WHEAT—Canada White	1 36 @	1 43	1 48 @	1 50
Western White	1 30 @	1 50	1 46 @	1 60
Southern White	1 35 @	1 52½	1 47½@	1 62½
All kinds of Red	1 12 @	1 34	1 22 @	1 40
CORN—Yellow	68 @	70	74 @	77
White	70 @	80	None selling.	
Mixed	66 @	66½	71 @	
OATS—Western	39 @	40½	38½@	39¼
State	40 @	41	39½@	40
Southern	35 @	39	37 @	39
RYE	79 @	80	80 @	81
BARLEY	70 @	80	77½@	85
HAY, in bales, per 100 lbs	70 @	1 00	75 @	1 00
COTTON—Middlings, per lb	10¾@	11	11¼@	11½
RICE, per 100 lbs	4 00 @	5 00	4 00 @	4 87½
HOPS, crop of 1860, per lb	15 @	29	38 @	57½
PORK—New Mess, per bbl	19 00 @	19 12	18 81 @	18 87
Prime, new, per bbl	14 00 @		14 37 @	14 50
BEEF—Repacked mess	9 00 @	9 75	8 75 @	9 25
Country mess	5 00 @	5 00	5 00 @	6 00
LARD, in bbls., per lb	12¾@	13¾	12¾@	13
BUTTER—Western, per lb	12 @	17	11 @	15
State, per lb	16 @	22	15 @	20
CHEESE	9½@	11½	9 @	11
EGGS—Fresh, per dozen	13½@	15		
Western, per doz	10 @	14		
POULTRY—Fowls, per lb	13 @	14	8 @	10
Chickens, per pair	62 @	75	44 @	62
Geese, per pair	1 00 @	1 50	1 25 @	1 50
Ducks, per pair	38 @	50	56 @	75
Turkeys, per lb	12 @	14	10 @	12
Partridges, ₱ pair			63 @	75
Wild Pigeons, ₱ doz			1 25 @	1 50
FEATHERS, Live Geese, p. lb	41 @	52	47½@	55
SEED—Clover, per lb	9 @	9¼	8@	10
Timothy, per bushel	2 25 @	2 75	2 65 @	2 75
SUGAR—Brown, per lb	6 @	8¾	6¼@	8½
MOLASSES, New-Orleans, p.gl	45 @	49	45 @	48
COFFEE, Rio, per lb	13½@	15½	13 @	15¾
TOBACCO—Kentucky, &c, p.lb	3 @	12	3 @	13
Seed Leaf, per lb	6 @	25	6 @	25
WOOL—Domestic fleece, p. lb	34 @	58	34 @	58
Domestic, pulled, per lb	25 @	43	23 @	48
HEMP—Undr'd Am., per tun	150 @	160	150 @	160
Dressed American, per tun	200 @	220	200 @	220
TALLOW, per lb	10 @		@	10
OIL CAKE, per tun	31 75 @	39 00	32 00 @	40 00
APPLES, Prime, per bbl	1 25 @	1 50	1 50 @	2 00
Medium, ₱ bbl			1 00 @	1 25
Common, per bbl	75 @	1 00	50 @	1 00
PEARS, Virgalieus, per bbl			10 00 @	15 00
Common, per bbl	1 25 @	2 25	3 00 @	4 00
GRAPES—Isabella ₱ lb			5 @	9
Dried Apples, per lb	4½@	5	3½@	5
Dried Peaches, per lb	8 @	12	10 @	15
Dried Cherries, pitted, pr. lb	19 @	20	17 @	18
POTATOES—Mercers, per bbl	1 87 @	2 25	1 25 @	1 75
Junes, per bbl	1 37 @	1 50	1 00 @	1 25
Dyckman, per bbl	1 50 @	1 62	1 25 @	1 50
Peach Blows, ₱ bbl			1 12 @	1 37
Sweet, Virginia, per bbl	2 00 @	3 00	2 00 @	2 25
Delaware and S. Jersey, ₱ bbl			1 75 @	2 50
ONIONS, Red, per bbl	1 75 @	2 00	2 00 @	2 50
White, per bbl	1 75 @	2 75	1 75 @	2 00
TURNIPS, per bbl	1 25 @		75 @	1 12
CABBAGES, per 100	2 00 @	3 00	2 50 @	3 50
SQUASHES, Marrow, per bbl	1 00 @	1 25	75 @	88
BEETS, per bbl	1 00 @		1 00 @	
TOMATOES, per bushel	50 @		38 @	50
LIMA BEANS, per bushel	56 @	75	1 00 @	
CRANBERRIES, Eastern, ₱ bbl			9 00 @	12 00
Western, ₱ bbl			6 00 @	8 00
CELERY, ₱ dozen			75 @	
PUMPKINS, ₱ 100			4 00 @	5 00

TRANSACTIONS AT THE NEW-YORK MARKETS.

RECEIPTS.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	*Oats.*
26 days *this* month	578,791	3,741,262	789,626	23,413	119,412	344,936
27 days *last* month	425,371	2,711,792	2,014,863	32,167	22,411	399,526
SALES.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	
26 business days *this* mon.,	588,670	3,877,200	1,367,500	60,250	297,350	
21 business days *last* mon.,	553,130	3,374,000	2,653,000	52,000	12,350	

Flour, Wheat, Corn, and Barley left at tide-water from the commencement of navigation to the 15th of October inclusive, during the years 1859 and 1860, are as follows:

	Flour, bbls.	*Wheat, bu.*	*Corn, bu.*	*Barly, bu.*
1859	364,517	1,748,523	2,293,056	667,809
1860	720,355	9,702,071	12,193,060	943,744
Increase	355,838	7,953,548	9,900,004	275,935

It will be seen that the increase in Flour, Wheat, and Corn, is enormous.

Breadstuffs Trade of Chicago, Jan. 1 to Oct. 10.

	RECEIPTS.		SHIPMENTS.	
	1860.	1859.	1860.	1859.
Flour, bbls	414,581	453,068	443,916	370,299
Wheat, bush	9,948,298	5,602,001	8,192,802	4,495,855
Corn, bush	14,271,632	4,091,910	12,495,260	3,355,319
Oats, bush	1,268,523	955,261	845,758	684,507
Rye, bush	207,422	147,880	72,629	68,787
Barley, bush	371,177	311,710	129,785	134,219

N. Y. Live Stock Markets.—THE CATTLE MARKETS have been very largely supplied, the receipts footing up 22,422 for the four weeks ending Oct 16th, or 5,605 per week—the highest average for any one month during two years past, at least, but so great has been the rush of visitors to this city, that about all have found a market, at only a slight decline from one month ago. For the last market there were 5,908 beeves, which sold rather slowly, at 9¼ c. @ 9¾ c. for prime grades; 8¼ c. @ 8¾ c. for fair to good, and so down to 6 c. @ 7 c. for the very poor; general average 7¾ c. per lb. estimated dressed weight.

VEAL CALVES.—Receipts have been light, numbering but 2,769 for the past four weeks. The demand is fair, for good fat calves of four to six weeks old, for which 6½ c. @ 7 c. per lb. live weight is readily obtained; but much of the stock is heavy, and rather poor, selling at 4 c. @ 5 c.

SHEEP AND LAMBS are abundant.—Receipts for four weeks foot up 58,727 or an average of 14,682 per week. This is a large number at a time when dressed sheep are coming in plentifully, and it is difficult to sell the whole of them. Good fat sheep and store ewes command fair prices and sell readily, the former at about 4½ c. @ 4¾ c. per lb. live weight, and the latter at $3.25 @ $3.75 per head. Common and poor lambs are in over supply, and sell quite slowly at $2. @ $2.50 each.

LIVE HOGS.—Receipts for the month just ended, have been 40,954 or 10,274 per week, just double what they where the previous month. With the return of cool weather the demand has so increased that nearly all the stock has been sold and that too without the aid of packers. Prices about as reported last month, or 6¼ c. @ 6¾ c. per lb. live weight for corn fed hogs; and 6 c. @ 6¼ c. for still fed hogs. The market is overstocked just now, 14,302 live hogs having been received during the past week.

The Weather, since our last report has been quite changeable, but generally cool, with heavy frosts, and even snow, at the north. Most crops have matured well, and been secured in good condition.——Our DAILY WEATHER NOTES, condensed, read thus: *September* 20 rainy A.M. cloudy P.M., and hard rain at night—21, to 24, clear, cool, fine weather—25, heavy shower—26, clear, and cool—27, cloudy, cool, with light rain at night—28, to 30, clear and cool.—*October* 1, coldest morning of the season; mercury 38° with hard frost; rainy day—2, 3, clear and milder—4, rain P. M. and at night—5 cloudy with light rain—6, 7, clear and cool—8, high wind, with rain—9 to 13, clear and fine—14, cloudy A.M. heavy rain P.M.—15, 16, clear and cool—17, cloudy—18, mild—19, clear fine autumn weather.

Thermometer at 6 A. M., New-York.

[Observations carefully made upon a standard Thermometer (Fahrenheit.) *r* indicates rain.]

SEPTEMBER.

1	62	7	68	13	50	19	60*r*	25	63*r*	
2	57	8	71*r*	14	53	20	66*r*	26	55	
3	50	9	55	15	57	21	57*r*	27	51*r*	
4	57	10	51	16	59	22	52	28	50*r*	
5	64	11	58	17	64*r*	23	58	29	43	
6	69	12	55*r*	18	63	24	60	30	43	

OCTOBER.

1	44*r*	4	52*r*	7	40	10	49	13	44	
2	58*r*	5	59	8	53*r*	11	60	14	47*r*	
3	54	6	52	9	44	12	50	15	40	

PREMIUMS FOR 1861.

Vol. XX.

(Subscriptions to the American Agriculturist for 1861 can begin now without extra charge.—See page 352.)

After close figuring, and liberal terms from manufacturers, we find we can fully keep up the character of our paper, and even *improve* it, and yet offer you the large premiums named below. These articles are offered as direct pay for time spent in canvassing for names. *This year we make no distinction between new and old subscribers*, though it is supposed that every canvasser will not only gather up the names of old subscribers, but also secure a large number of new names.

☞In selecting articles for premiums, we have aimed to get such as are *useful* and as have been most frequently called for by our readers. ☞WE WISH IT DISTINCTLY UNDERSTOOD *that these premiums are offered in good faith—no cheap, trashy, imperfect, poorly made or second-hand thing, will be sent out, but each article offered, is the best of its kind, and every one will be selected by the publisher from the very best manufactured. They will be the best sold in the market at the prices named.*

☞We offer nothing for competition. Each premium is for a specified number of subscribers, and no one's remuneration will depend upon what other unknown persons are doing. Every one aiming for a premium, knows just what he, or she, is working for; and also that if a higher premium is not secured, a lower one can be taken.

☞The work of collecting names can begin *now* with special advantage. See last page (352) for extra inducements to new subscribers.

☞Any extra specimen copies, or show bills, needed by canvassers, will be freely furnished. We have now a good show bill for 1861.

☞Of course only one premium can be paid on the same subscriber.

☞Every person collecting names for premiums, can send the names with the money as fast as obtained, so that the subscribers may begin to receive their papers; but if designed for premiums, two copies of each list of names should be sent, one of them marked at the top, "For premiums," also with the name of the sender. These duplicate lists will be kept on file by themselves, to be referred to in making up the premium when any person has completed sending in names for Volume XX.

☞The premiums are offered for subscribers for Volume XX (1861), whenever received. Canvassers will have time for completing their lists, but the premium will be paid as soon as any list is made up—if duplicate lists are sent, to refer to at once.

☞No premium is sent till *specifically asked for*, as we have many friends who send in large lists but will take no premium, and we are not certain that premiums are desired, unless the fact be particularly mentioned.

☞It is believed that all can recommend this journal to their friends and neighbors, and urge them to take and read it. It will continue to be independent, outspoken, and reliable, the special friend, advocate, and promoter of the farmer's interest, and will aim to facilitate and lighten the labors of every household. A larger number of instructive as well as pleasing engravings, and a greater amount of really useful information, will be given in the next volume, than in any preceeding one. *Onward, upward*, is our motto.

☞Premiums **A**, to **J**, are offered for subscribers at the lowest club price (80c.), or at the regular price ($1) Any person who has commenced sending in names at 80c. and who finally fails to get the higher number of names, can fall back upon the smaller number, by remitting the 20 cents extra on each of the smaller number of names required.

Premium A.

140 Subscribers at 80 cents each, (or **95** at $1 each,) will entitle the person getting up the club to one of *Wheeler & Wilson's* best **$50 Sewing Machines,** new from the factory, and of the very best make. There is no better family machine than this made, as we have proved by nearly three years' use in our own family. We want no better.—The machines will be selected new at the manufactory, be well boxed, and forwarded without expense to the recipient, except for freight charges after leaving the city. Full instructions for setting up and using, go with each machine.

Premium B.

130 Subscribers at 80 cents each, (or **90** at $1 each,) will entitle the person getting up the club to a set of *Appleton's* **New American Cyclopædia,** now in course of publication, consisting of *fifteen large volumes* of 770 pages each. This is a magnificent work, forming a whole library embracing every topic of human knowledge. Ten volumes are now ready, and the remaining five will be furnished as fast as issued. Price, $45.

Premium C.

98 Subscribers at 80 cents each, (or **69** at $1 each,) will entitle the person getting up the club to one of *Willcox & Gibbs'* **$35 Sewing Machines,** including a set of **Hemmers.** This is the best machine of its kind, (sewing with one thread), and has several points superior to other machines. It is neat, well made, simple in its operation; and having tested one for some time past in our own family, we can recommend it to these who can not afford to buy the higher priced double-thread machines. (The regular price of this machine is $30, but we have included in our offer $5 extra for the set of *Hemmers*, because those used with this machine are very simple and effective, and should go with every machine sent out.) The machines given as premiums, will be selected new at the factory, be well boxed, and will be forwarded to the recipient free of expense, except for freight after leaving the city. They will go out set up ready for use, with printed directions for operating.

Premium D.

65 Subscribers at 80 cents each, (or **32** at $1 each,) will entitle the person getting up the club to one of the New **$10 Wringing Machines,** described on page 247 of the August *Agriculturist*. This is one of the best labor-saving and clothes-saving inventions of the day, and we unhesitatingly say that it will pay to have one to assist in the washing of every family, even if of only moderate size. We would not take $50 for our machine, if another could not be purchased.

Premium E.

60 Subscribers at 80 cents each, (or **30** at $1 each,) will entitle the person getting up the club to one of Kendall's **Aneroid Barometers,** described on page 232 of the August *Agriculturist*. This is a good, portable instrument, and valuable to every person as a weather guide, as well as for scientific purposes. (Price $10.)

Premium F.

50 Subscribers at 80 cents each, (or **26** at $1 each,) will entitle the person getting up the club to one of the best **$8 Straw and Hay Cutters.** [If preferred, the best $8 **Subsoil Plow** (two-horse) will be given.]

Premium G.

42 Subscribers at 80 cents each, (or **22** at $1 each,) will entitle the person getting up the club to the new and enlarged $6½ *Pictorial Edition of* **Webster's Unabridged Dictionary.** This standard work comprises **1748** large 3 column pages. It is not only an ornament to every house, but is of great practical use; and its full definitions place it next to the Cyclopædia as a source of general information. It weighs 8½ lbs., and can go by express; or be sent by mail for 1 cent per ounce within 3000 miles, or 2 cents per ounce over 3000 miles.

Premium H.

40 Subscribers at 80 cents each, (or **21** at $1 each,) will entitle the person getting up the club to one of the best **$6½ Hand Corn Shellers,** a convenient, effective, and useful implement.

Premium I.

30 Subscribers at 80 cents each, (or **16** at $1 each,) will entitle the person getting up the club to one extra copy of Vol. XX, and also to the **4** previous unbound **Volumes** of the *American Agriculturist*, (16, 17, 18, 19) *sent post paid.*

Premium J.

26 Subscribers at 80 cents each, (or **14** at $1 each,) will entitle the person getting up the club to a $4 **Pocket Microscope,** with the celebrated "hour-glass," or Coddington lens, in a solid silver case. Sent post-paid.

Premium K.

25 Subscribers at 80 cents each, will entitle the person getting up the club to an extra copy of Vol. XX, and also to any *three* of the unbound volumes 16, 17, 18, and 19, sent post-paid. ☞**20** Subscribers at 80 cents each, to an extra copy of Vol. XX, and *two* of those volumes. ☞**15** Subscribers at 80 cents each, to an extra copy of Vol. XX, and *one* of the previous volumes.

Premium L.

20 Subscribers at 80 cents each, will entitle the person getting up the club to an assortment of *Windsor & Newton's* **Water Color Paints**—consisting of 12 colors, put up in a neat mahogany case, with brushes, etc. These paints are imported from London, and are by all considered the best in the world. They are adapted to the finest work, or they will make a neat and appropriate present to any of our younger readers. They will be sent post-paid anywhere within 3000 miles. (If to go to the British Provinces or the Pacific Coast, the recipient will need to send 84 cents for the extra postage required above the 6 cents per ounce which we pay. This and the next premium, if sent with our box of seeds, going to California in February, can go without the extra postage.

Premium M.

15 Subscribers at 80 cents each, will entitle the person getting up the club to an assortment of *Osborne & Hodgkinson's* **Water Color Paints,** consisting of 24 colors or shades, put up in a mahogany case with brushes, cups, etc. These are of American manufacture, and though not so fine as the above, they will answer for ordinary practice by children or beginners, and for common sketching. They will also be sent by mail, post-paid. (If to go to the British Provinces, or to the Pacific Coast, $1,05 will need to be sent by the recipient to pay the extra postage above 6 cents per ounce.)

Premium N.

10 Subscribers at 80 cents each, will entitle the person getting up the club to any *one* of the four previous unbound volumes (16, 17, 18, 19,) sent post-paid.

Premium O.

237 Subscribers at 80 cents each (or **125** at $1 each) will entitle the person getting up the club to one of *Geo. A. Prince & Co.'s* **$75 Melodeons** (5 octaves). These Melodeons are of very superior tone and finish. We have ourselves used one (costing $150) for two years past, and it has given the highest satisfaction, and is pronounced by all who have heard it, as one of the very best. The different priced instruments are of equally good tone—the price varying with the size and style of finish. The size, prices, etc., of these instruments can be learned particularly by sending a stamp to Geo. A. Prince & Co., Buffalo, N. Y., for an illustrated descriptive catalogue. The instruments given as Premiums will be sent new directly from the factory at Buffalo, ready boxed, and without extra expense to the recipient, except for freight after leaving the factory.

☞The above premium list might be made up by the members of a congregation, and an instrument thus secured for a church.

Premium P.

182 Subscribers at 80 cents each (or **105** at $1 each) will entitle the person getting up the club to one of *Geo. A. Prince & Co.'s* **$60 Melodeons** (4½ octaves.) See remarks above.

Premium Q.

130 Subscribers at 80 cents each (or **90** at $1 each), will entitle the person getting up the club to one of *Geo A. Prince & Co.'s* **$45 Melodeons** (4 octaves.) See remarks above.

Book Premiums.

Valuable Book Premiums.—Instead of the above premiums, any person getting up a club of 20 or more names, may choose any desired Books from the list (advertised on page 350) *to the amount of* 12½ *cents for each name forwarded at* 80 *cents*, (or 32½ cents for each name sent at $1,) and the books will be sent post-paid. (If to go over 3000 miles, the recipient will need to send 20 cents for extra postage on each dollar's worth of books. ☞Persons making up a club for any of the above premiums, and getting some names over the required amount, will be entitled to books for the surplus names.

Eight Men,

Happened to be together one evening, and on looking over our premium list, they resolved to each obtain twelve subscribers to it, and thus secure a good sewing machine to be given to a poor but worthy widow in their neighborhood. They found many willing to pay a dollar each, and even more, when by so doing they not only secured a good paper for themselves, which they had before thought of subscribing for, but also at the same time helped an unfortunate neighbor. In many other neighborhoods a similar course has been pursued At least two tailors, with large families, were remembered in the same way, last winter.

To Advertisers.—Terms Advanced.

By referring to the terms of Advertising, it will be seen that the rates are somewhat advanced. This has become necessary, to prevent their over-running the reading columns. We were compelled to refuse a large amount offered for the present paper. Further, the large increase in our circulation renders this advance of terms quite proper. Our charges will still be *lower than most, if not all other Journals*. The correct mode of estimating advertising rates is by *the amount per line for each thousand of actual circulation*. Our new terms will be little, if any, over half a cent per line for each thousand copies of the *Agriculturist* circulated. We invite a comparison of these rates with those of any other journal of known circulation. Still further, the limited space we give to advertisements, the exclusion of medicines, humbugs, and unreliable advertisements, and the monthly issue of the paper, all contribute to make our advertising pages unusually valuable.

Free Seeds for 1861.

As in former years, we shall provide a large assortment of valuable Seeds to distribute *without charge* to every subscriber desiring them. The seeds will consist of various kinds, for the Field, Garden, and Flower Plots. The list will be announced as soon as we can get our collection together. These seeds will often be worth more than the cost of a year's subscription, especially in distant parts of the country, remote from reliable seed stores.

Advertisements.

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month.

TERMS—(invariably cash before insertion):

FOR THE ENGLISH EDITION ONLY.

Fifty cents per line of *space* for each insertion.
One whole column (145 lines), or more, $60 per column.
☞ Business Notices, *Eighty cents* per line of space.

FOR THE GERMAN EDITION ONLY.

Ten cents per line of *space* for each insertion.
One whole column 130 lines), or more, $10 per column.
☞ Business Notices, *twenty* cents a line.

FOR BOTH EDITIONS, ENGLISH AND GERMAN.

Fifty five cents per line; $65 per column.
☞ Business Notices *Eighty-five* cents per line.

DESIGNING AND ENGRAVING ON WOOD.

All who may desire to have designing or engraving done, will find it to their advantage to call on the subscriber, who is prepared to furnish on the most reasonable terms, and in the best style of the art, PORTRAITS, views of BUILDINGS, PLANS, &c., of Agricultural Implements, Horticultural and Scientific subjects of every description. THOMAS COX,

105 Nassau-st., corner of Ann-st., New-York.

BOOKS FOR FARMERS AND OTHERS.

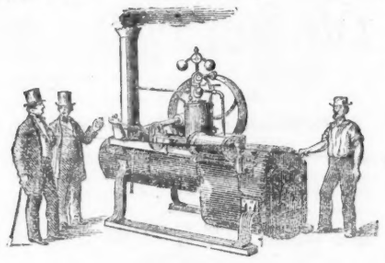
[Any one of the following books can be obtained at the office of the *Agriculturist* at the prices named, or they will be forwarded by mail, *post paid*, on receipt of the price. Other books not named in this list will be procured and sent to subscribers when desired, if the price be forwarded.]

American Farmer's Encyclopedia	$4 00
American Weeds and Useful Plants	1 50
Allen's (R. L.) American Farm Book	1 00
Allen's Diseases of Domestic Animals	75
Allen's (L. F.) Rural Architecture	1 25
Allen on the Culture of the Grape	1 00
American Architect	6 00
American Florist's Guide	75
Barry's Fruit Garden	1 25
Bement's (C. N.) Rabbit Fancier	50
Blake's Farmer at Home	1 25
Boussingault's (J. B.) Rural Economy	1 50
Bridgeman's Young Gardener's Assistant	1 50
Bridgeman's Kitchen Gardener's Instructor	60
Bridgeman's Florist's Guide	60
Bridgeman's Fruit Cultivator's Manual	60
Breck's (Joseph) Book of Flowers	1 00
Buist's American Flower Garden Directory	1 25
Buist's Family Kitchen Gardener	75
Chorlton's Grape-Grower's Guide	60
Cole's (S. W.) American Fruit Book	50
Dadd's (Geo. H.) Modern Horse Doctor	1 00
Dadd's (Geo. H.) American Cattle Doctor	1 00
Dadd's Anatomy of the Horse	2 00
The Same, colored plates	4 00
Dana's Muck Manual for Farmers	1 00
Domestic and Ornamental Poultry	1 00
The Same, colored plates	2 00
Downing's Landscape Gardening	3 50
Eastwood on the Cranberry	50
Elliott's Western Fruit Book	1 25
Every Lady Her Own Flower-Gardener	50
Farm Record, for 25 years	3 00
Farmer's Practical Horse Farrier	60
French's Farm Drainage	1 00
Frugal Housewife, by Mrs Child	38
Fessenden's American Kitchen Gardener	50
Field's (Thomas W.) Pear Culture	1 00
Fish Culture	1 00
Flint (Charles L.) on Grasses	1 25
Fruits and Fruit Trees of America (Downing's)	1 50
Grant's (Dr. C. W.) Vine Culture	1 25
Gleason on Milch Cows	60
Hall's (Miss) Amer can Cookery	1 00
Herbert's Hints to Horsekeepers	1 25
Hooper's Dog and Gun	50
Langstroth on the Honey Bee	1 25
Liebig's Lectures on Chemistry	50
Leuchars' Houlouses	1 25
Linsley's (D. C.) Morgan Horses	1 00
Milburn on the Cow and Dairy	50
Miles on the Horse's Foot	50
Nash's (J. A.) Progressive Farmer	60
Norton's Scientific Agriculture	50
Our Farm of Four Acres	50
Pardee on Strawberry Culture	60
Pedder's Farmer's Land Measurer	50
Quinby's Mysteries of Bee keeping	1 00
Randall's Sheep Husbandry	1 25
Reemelin's Vine-Dresser's Manual	60
Richardson on Dogs	50
River's (Wm.) Orchard House	40
Rose Culturist	50
Robin's Produce and Ready Reckoner	60
Shepherd's Own Book	2 00
Skillful Housewife	50
Smith's Landscape Gardening	1 25
Stephens' Book of the Farm, 2 vols	4 00
Stewart's (John) Stable Book	1 00
Talpa: the Chronicle of a Clay Farm	75
Thaer's (Albert D.) Agriculture	2 00
Thomas (John J.) Farm Implements	1 00
Thomas (J. J.) American Fruit Culturist	1 25
Thompson on the Food of Animals	75
Todd's (S. E.) Young Farmer's Manual	1 25
Turner's Cotton Planter's Manual	1 00
Warder's Hedges and Evergreens	1 00
Waring's Elements of Agriculture	75
Weeks' (John M.) Manual on Bees	50
Wheat Plant	1 50
White's Gardening for the South	1 25
Yale College Lectures	50
Youatt and Spooner on the Horse	1 25
Youatt and Martin on Cattle	1 25
Youatt and Martin on the Hog	75
Youatt on Sheep	75

PORTABLE STEAM ENGINES.

A. N. Wood & Co.,
Eaton, N. Y.

A. N. WOOD. L. C. TABER. W. MORSE.



The above cut represents a Portable Engine of entirely new pattern, built by A. N. WOOD & CO., which is acknowledged by all to be the most compact and durable of anything yet devised for an Engine. A gentleman in La. writes us that he received his 12-horse power, and although it was entirely disconnected from the boiler, the machine being so simple and well fitted, he, without the assistance of an engineer, put it together, changed the eccentric and reversed the motion. Persons interested in steam power, by enclosing stamp, will receive our Circular, giving list, price, description, etc.

A. N. WOOD & CO.

Eaton, N. Y., Oct. 1st, 1860.

NEW-YORK AGRICULTURAL IMPLEMENT,

Machine, and Seed Warehouse.

R. L. Allen, 191 Water-st., N. Y.

The attention of Farmers, Merchants, and all interested, is invited to my large and unequaled assortment of Agricultural and Horticultural Implements and Machines.—The greatest care is used in the selection of articles I offer for sale, to have them of the best and most approved patterns, and that they be made in the most substantial manner.

I particularly call attention to my superior Burr Stone and Iron Grain Mills, Horse-Powers, Threshers, Mowing and Reaping Machines, Saw Mills, Corn Shellers, Hay, Fodder, and Stalk Cutters, Presses, Pumps, Brick Machines, Carts and Wagons, Cotton Sweeps, Cultivators, Harrows, Plows of every variety, Garden Tools, &c.

FERTILIZERS—Peruvian Guano, Bone Dust, Phosphate of Lime, Dried Blood and Wool, Plaster, &c.

Orders solicited for the above, and for STEAM ENGINES and MACHINERY OF ALL KINDS, which shall receive prompt attention, and be filled on our best terms.

People's Farm Mill Complete $40.

PORTABLE, CHEAP, DURABLE, combining simplicity of action, regularity of its grinding unequalled by any; grinds eight bushels hardest corn per hour, with two horse power, and only 250 revolutions per minute. It obviates all the objections to CONICAL or BURR motion, the grinding plates working upon principles of Burr and Mill Stones, with similar dressing; weighs three hundred pounds. Any kind of power runs it, driving a belt. Send for Circular.

M. C. CHADWICK & CO., 17 Spruce-st., New-York.

HAY, STRAW AND STALK CUTTERS
from $2 50 to $75

CORN SHELLERS,
from $5 to $45

WILLARD'S PATENT ROOT CUTTERS,
old at wholesale and retail at the
North River Agricultural Warehouse,
GRIFFING BROTHER & CO'S
60 Cortlandt-st., New-York.

HAY—HAY—HAY.

INGERSOLL'S IMPROVED PORTABLE HAY PRESS, for packing *Hay, Cotton, Rags, Hemp, Broom Corn*, &c., &c., 700 of these machines having been sold during the last three years, letters from every State in the Union testify to their *superiority, convenience* and *economy*.

Price *Hay Press No.* 1, $50, wt. of bale 150 to 200 lbs. No. 2 $75, wt. of bale 250 to 300 lbs. Cotton Press, $150. Any sizes and for any purpose of packing, made to order and delivered on shipboard in New-York. Address for Circulars or Machines FARMERS MANUF'G CO., Greenpoint, Kings Co., N. Y.

KEYSTONE CORN STALK CUTTER AND GRINDER,

It will cut and grind five bushels of corn stalks a minute Price $35. Send for a Circular.

GRIFFING BROTHER & CO.,
60 Cortlandt-st., New-York City.

AMALGAM BELLS. — ONLY ONE-THIRD AS much as Brass Composition, with tone and strength equal. Farm, School-houses, Shops, and Hotels supplied, 50 to 200 lb. Bells, at 86 to $25 each. Churches, Academies, Fire Alarm Bells, 5000 lbs. $625; 1700 lbs. $175; 1000 lbs. $125; 825 lbs. $100; 650 lbs. $75; 500 lbs. $60; 400 lbs. $55; 300 lbs. $35; complete and warranted 12 months, with Yoke, Standard, Wheel, and Tolling Clapper, and delivered at express offices, railroads, or steamboats.

Also, People's Farm Mill, complete, and warranted, $40.

M. C. CHADWICK & CO., 11 Spruce-st., New-York.

THOROUGH BRED AYRSHIRES; ONE OR two fine cows to calve in Spring. Young bulls one and two years old.

THOROUGH BRED NORTH DEVONS. "Imported" Duke of Devonshire—also one or two superior heifers, imported at same time; all four years old. Address

A. M. TREDWELL, 45 Fulton-st., New-York.

DOMESTICATED DEER.

One pair, five months old, bred at Springside—price $30, Caged and delivered at Poughkeepsie. Apply to

C. N. BEMENT, Poughkeepsie, N. Y.

BERKSHIRE SWINE FROM DIFFERENT IMportations. For sale in Pairs or Single, of different ages, by EDWARD WAIT, Walden, Orange Co., N. Y.

BERKSHIRE SWINE of unmixed breed, and from different litters; at a low price. For sale by WM. J. PETTEE, Lakeville, Conn.

THE HYDROPULT,

An invention for throwing water by hand-power, patented by W. T. VOSE. It is one of the most valuable inventions of the day.

THE HYDROPULT

will, by the power of one man, throw water at the rate of eight gallons per minute fifty feet high, with great force. It is the best article ever invented for

EXTINGUISHING A FIRE,
PROTECTING A ROOF FROM TAKING FIRE,
WASHING WINDOWS,
SPRINKLING PLANTS,
WATERING GARDENS,
CLEANSING TREES FROM INSECTS,
WETTING SIDEWALKS,
SPRINKLING STREETS,
WASHING CARRIAGES,
DRAINING CELLARS,
CLEANING CISTERNS,
EMPTYING WATER FROM BOATS,
WETTING SAILS,
A SPRAY BATH, &c., &c.

This article should be owned by every householder. It does away with the necessity of a hydrant. It is a light, portable FORCE-PUMP, always ready, easily used, and will come in frequent use by every farmer, merchant, and mechanic in the community. Please call and examine the article at No. 151 Nassau-st., Times Building, or address the

AMERICAN HYDROPULT CO.,
No. 151 Nassau-st. and 41 Park-Row New-York.

Agents wanted throughout the United States to sell the Hydropult. Apply as above.

COAL SIFTER.—This excellent cheap Machine, described in the *Agriculturist* for February, 1860, (and which is now in constant use and highly approved by the Editor of this Journal, and by thousands of others,) may be obtained, wholesale and retail, of the manufacturer,

SANFORD ADAMS, Lincoln-st., Boston,
or of REA & POLLOCK'S, 48 Cortlandt-st., New-York.

BEAN AND SEED SEPARATORS for beans and all kinds of grain and foul seeds, for sale as above.

Bartlett's Hot Air Furnace

AND PORTABLE HEATERS, FOR WOOD AND COAL, ARE THE BEST.

"We have used one four Winters to our perfect satisfaction."—[Fowler & Wells.] "None surpass them."—[Home Journal.] "Will insure what all require—safety from fire, economy in fuel, ease of management, and purity of heated air."—[New-York OBSERVER.]

BARTLETT & LESLEY, No. 426 Broadway, New-York.

KEEP YOUR FEET DRY.

A. BROWER'S PATENT WATER PROOF COMPOSITION is warranted to make Boots, Shoes, and all Leather impervious to Water by a single application, and will last at least half as long again. Every body needs it. For sale everywhere. Agents wanted.

A. BROWER,
No. 4 Reade-st., New-York.

N. B. None genuine unless signed A. Brower.

The New Clothes Wringer.

Almost all labor dispensed with. Durable and simple.

For sale wholesale and retail, with or without the Metropolitan Washing Machine, by

DAVID LYMAN, Middlefield, Ct.
LE ROY & CO., Hartford, Ct.,
WM. FAULKNER & SON., San Francisco, Cal.

Send for a Circular.

J. THOMPSON'S
TRANSPARENT and FANCY SOAPS.
D. TAYLOR & CO.,
Corner of Greenwich and Reade-sts., New-York.

Important to Housekeepers!

E. R. DURKEE & CO'S

SELECT SPICES.

In this age of adulterated and tasteless Spices, it is with confidence that we introduce to the attention of housekeepers these superior articles. We guarantee them not only

absolutely and perfectly pure,

but ground from fresh Spices, selected and cleaned by us expressly for the purpose, without reference to cost. They are beautifully packed in tinfoil, (lined with paper,) to prevent injury by keeping, and are full weight, while the ordinary ground Spices are almost invariably short. We warrant them, in point of richness and flavor,

beyond all comparison,

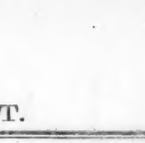
as a single trial will instantly prove.

Manufactured only by E. R. DURKEE & CO., New-York.
For sale by dealers in choice groceries generally.

JONAS BROOK & BROS.,

PATENT GLACE AND PATENT SIX CORD

SPOOL COTTON.



White, Black, and Colored; on spools of 200, 500, and 2100 Yards. Consumers of thread are requested to notice that BROOK'S SPOOL COTTON took the HIGHEST PRIZES awarded to SPOOL COTTON at the GREAT EXHIBITIONS in LONDON in 1851 and in PARIS in 1855. Being made under the personal directions of the Messrs. Brook, the quality will be uniform, and the lengths guaranteed. With the lustre of silk, it combines the strength of linen, and thousands of families and manufacturers, now using it, unite in testifying as to its excellency for either hand or machine sewing, its strength not being impaired either by washing or by friction of the needle. On every spool of the genuine is a ticket—as in margin of this advertisement—bearing the name and crest of Brook. Constantly for sale in cases of 100 Doz. each, assorted Nos., by the manufacturers' Agent, WM. HENRY SMITH, 32, 34 & 36 Vesey-st., New-York.

$5. BABBITT'S SOAP. $5.

PRICE PER BOX

Mr. B. T. BABBITT, the well known Saleratus Manufacturer, is bringing out a new and useful article of

SOAP,

put up in boxes of 60 pounds each, in one-pound bars, price $5 per box. This Soap is rapidly taking the place of all other Soaps wherever introduced. One pound will go as far as three pounds of ordinary family Soap. It will wash in either hard or salt water; it does not injure the fabric—on the contrary, it preserves it, and fixes the colors. It will remove paint, grease, or stains of all kinds. But little labor is required where this Soap is used. Directions sent in each box for making ONE POUND OF THE ABOVE SOAP into THREE GALLONS OF HANDSOME SOFT SOAP. Send for a box and give it a trial. If you do not want a whole box yourself, get your neighbors to join you and divide it. Believing that no family which has once used this Soap, will ever be without it, and being desirous to have its merits widely known, I have made arrangements with the proprietors of the following papers, (many of whom have tried the soap and know its value,) by which I am able for the present to offer to any person remitting me $5 on any solvent bank in the United States, one box of the above Soap and a receipt for one year's subscription to either of the following New-York papers, namely:

Am. Agriculturist,	Christian Advocate,
The Weekly Tribune,	Lloyd's Am. R. R. Weekly,
The Weekly Sun Book,	The Weekly World,
The Weekly Times,	The Scottish Am. Journal,
The Weekly Sun,	Hankins' Family Pictorial,
The Century,	United States Journal,
The Independent,	The Chronicle,
The Examiner,	The Methodist,
	Vanity Fair.

Or, if preferred, I will send the Semi-Weekly Tribune, or Harper's Weekly, six months, or the Daily Tribune, Times or Sun two months.

Please be particular, and give full directions for shipping the goods. Also, give the name of your post-office, with the State and County in which you reside. Address,

B. T. BABBITT,
Nos. 64, 66, 68, 70, 72 and 74 Washington-st., New-York.

P. S.—I will send the Soap, without paper, on the receipt of $4.20.

FOR SALE EVERYWHERE.

N. B.—The above liberal offer stands good, though you do not see it repeated every week.

GUANO.

We would call the attention of Guano Dealers, Planters and Farmers, to the article which we have on hand and for sale at 40 PER CENT LESS THAN PERUVIAN GUANO,

which we claim to be superior to any Guano or fertilizer ever imported or manufactured in this country.

THIS GUANO IS IMPORTED BY
WM. H. WEBB.
OF NEW-YORK, FROM
Baker's and Jarvis' Islands, in the South Pacific Ocean.

Sold genuine and pure as imported by the Cargo, or at retail, by
JOHN B. SARDY, General Agent,
No. 38 SOUTH-STREET, cor. of Wall-street,
NEW-YORK.

It has been satisfactorily tested by many of our prominent Farmers, and analyzed by the most eminent and popular Agricultural Chemists, and found to contain (as will be seen by our circular) a large per centage of

BONE PHOSPHATE OF LIME AND PHOSPHORIC ACID,

and other animal organic matter, yielding ammonia sufficient to produce immediate abundant crops, besides substantially enriching the soil. It can be freely used without danger of burning the seed or plant, by coming in contact with it, as is the case with some other fertilizers; retaining a great degree of moisture, it causes the plant to grow in a healthy condition, and as experience has proved,

FREE OF INSECTS.

For orders in any quantity, (which will be promptly attended to,) or pamphlets containing full particulars of analyses and tests of Farmers, apply as above.

AMERICAN GUANO

FROM

Jarvis and Baker Islands

IN THE SOUTH PACIFIC OCEAN,
Under the protection of the U. S. Government,

Address AMERICAN GUANO CO.,
No. 66 William street, New-York.

"FERTILIZERS."

FRED'K LANGMAN, Dealer in Guano, Bone Ash, &c. &c
No. 159 Water-street, New-York,
"SOLE AGENT"

For A. LISTER & BRO'S, Tarrytown, N. Y. Superior Fertilizers, viz: Superphosphate of Lime made from Raw Bones; fine, medium, and coarse ground bones, bone dust, &c., &c. suitable for all agricultural purposes. All the above fertilizers warranted pure, and of the very best quality.

Testimonials can be seen at the store of F. L. as above, to whom all communications are to be addressed.

GENUINE No. 1 PERUVIAN GUANO.

American Guano. Bone Dust.
Superphosphate of Lime.
Dried Blood and Wool. Land Plaster. Poudrette.

For sale at lowest market price, and in quantities to suit.

R. L. ALLEN 119, Water-st., New-York.

Contents for November, 1860.

Publisher's Notices.

(See Premium List and remarks, on page 348.)

The Time has Expired, for new subscribers to secure the *large* "baker's dozen," but no matter; we will print ten thousand extra copies or so, of this number to be given to those who first send in their Subscriptions for 1861. Those soliciting new subscribers can therefore still offer them the premium of two numbers of this year *free*. We can not, from present indications, promise that these extra copies will hold out for the whole of the month. All new names received during Nov. will certainly get the December number free, and the first ten thousand will also get the November Number.

"Good for the Eyes," said our proof reader, as he looked at the clear, sharp impression from the **new type** used in most of the present number. We intended this new type for the New Year, but we have plenty of other improvements in store for the *twentieth* volume. Furthermore, first impressions go a great way, and as we wish to stand well in the *eyes*, as well as hearts, of the thousands of new readers now coming in, we have anticipated our own plans, and put on a new dress in the present number.

Many Premiums already Secured. A large number of persons have already sent in names enough to secure the desired premiums, and quite a number have written that they find the work so easy, they intend to secure a second, and probably a third premium this Fall. As no premium is offered for a club, which can not be afforded, we shall be able to supply just as many premiums as can possibly be called for.

There are four Million Families in the United States and British Provinces, who would not misspend 80 cents or $1 each, in procuring such a paper as the twentieth volume of the *Agriculturist* is to be. So then, there is room for at least 50,000 persons to each get a premium, ranging from a superb Dictionary to a Cyclopædia of 15 great volumes, or a first quality Melodeon or Sewing Machine. (See the preceding paragraph and turn to the Premium List on page 348).

Election Day will bring together many farmers, and others, who would subscribe for the *Agriculturist*, if it were shown to them. By taking along your copy as a sample, and voting early (but not "often"), you may spend the rest of the day profitably in making up a premium club. With a strong effort, you may, perhaps, secure a premium in a single day.

A Melodeon for the Church or School Room.—It will be an easy matter for the members of a church, or neighborhood, to club together and get a first quality Melodeon for their common use. At the same time *each* person will get a full volume of the *Agriculturist*, and a lot of good seeds besides. It only wants somebody to start the project in every neighborhood. Several churches have already moved in the matter. Who else will undertake it? See Premium List, page 348.

Motto of the American Agriculturist:

"Published to do good and make money!"

Or, if the reader prefers, he may transpose it thus:

"Published to make money and do good!"

This journal is not furnished below cost, and the publisher makes no such profession. He makes no promises, and offers no premiums that the actual income in each case will not warrant. Others who have axes to grind, or outside business to be promoted, may give away a paper, and even offer a premium to any person who will take it,

North! South! East! West! From every State and Territory, as well as from the British Provinces, subscribers are pouring in. Four times as many have been received since Sept. 1st, as during the same time last year! The more the better, not only for the proprietor but for the reader also; each additional thousand adds to the facilities for improving the paper, for procuring seeds for free distribution, etc.

Half a Million Packages of Good Seeds will be provided for free distribution among the subscribers to the 20th volume of the *Agriculturist*. Last year we gave away about 250,000 parcels, and we are quite sure to want twice as many next year, so we are providing them. If possible to get the full list ready, it will be published in the next number—certainly in the January number.

Certificate of Agency.—This is to certify that every man, woman, and child is duly authorized to invite all their friends and aquaintances to take the *American Agriculturist*.

Two Cents a week will pay for the *Agriculturist* a year, and leave enough to buy paper and postage stamp to renew the subscription. The children will be better pleased and derive more benefit from the money expended thus, than from the same amount laid out in candy; the wife will prefer it to so many two cent cigars; and at the year's end, ten dollars would not buy back the information gained by reading the 384 valuable pages contained in each annual volume. Try it.

Beautiful Showbills for 1861, of large size, containing over forty engravings, and quite ornamental, are now ready. We will send one post paid to any subscriber who can use it to advantage. Country Merchants and others who can put them in a conspicuous place, are invited to send for them.

All About Postage Stamps.—Three-cent U. S. Postage Stamps are convenient for remitting small sums, where good bank bills are not at hand. A piece of paper should be placed against the gummed surfaces, or they may adhere to the letter, or to the other stamps, if they get moist and warm. Ten and twelve cent stamps are hard to get rid of, and we ask those remitting stamps to always send the 3-cent kind, when they can be obtained. Canada Postage stamps are not received by our P. O. Department, and are of no value here. Canada bank bills are good.